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ASSOCIATED PLATING COMPANY

Soil Gas Investigation Report

9636 Ann Street, Santa Fe Springs, California 90670

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Environment & Water Resources

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LIST OF ACRONYMS & ABBREVIATIONS

AMSL	above mean sea level
AOPC	area of potential concern
API	American Petroleum Institute
APC	Associated Plating Company
AST	above-ground storage tank
ASTM	American Standards for Testing and Materials
bgs	below ground surface
CL	lean clay
cm	centimeter
cm/s	centimeters per second
°C	degrees Celsius
cis-1,2-DCE	cis-1,2-Dichloroethene
DTSC	Department of Toxic Substances Control
DOT	Department of Transportation
DWR	California Department of Water Resources
ft/ft	feet per foot
GAC	granular activated carbon
g/cc	grams per cubic centimeter
in. Hg	inches of mercury
µg	micrograms
µg/L	micrograms per liter
mL/min	milliliters per minute
ND	not detected
OD	outer diameter
OU	Operable Unit



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%	percent
PBR	Permit by Rule
PID	photo-ionization detector
QA/QC	quality assurance/quality control
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SCFM	standard cubic feet per minute
SIL	silty loam
SVE	soil vapor extraction
PCE	Tetrachloroethene
TCE	Trichloroethene
USCS	Unified Soil Classification System
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
VC	Vinyl Chloride
VOCs	volatile organic compounds



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1. INTRODUCTION

This document presents the results of the May 2012 soil gas investigation at the Associated Plating Company (APC) metal plating facility (the Facility – **Figure 1**) located at 9636 Ann Street in the City of Santa Fe Springs, California. The work was performed at the request of the Department of Toxic and Substances Control (DTSC), which was made during a meeting conducted on September 9, 2010, between the DTSC, APC and WorleyParsons. The DTSC indicated that areas of potential concern (AOPCs) needed to be evaluated for remediation based on current volatile organic compound (VOC) soil gas concentrations rather than relying on historical concentrations or modeled results. In response to their request, WorleyParsons, on behalf of APC, submitted a Work Plan for Soil Gas Confirmation Sampling (WorleyParsons 2011) to the DTSC for review and approval. The Work Plan provided details of the proposed soil gas investigation program. Approval of the Work Plan was issued by the DTSC in a letter dated April 3, 2012 (**Appendix 1**). The results of this soil gas investigation are presented herein.

1.1 Report Structure

The report is presented in eight sections structured as follows:

- *Section 1: Introduction*, provides a brief introduction, an outline of the report and the objectives of the soil gas investigation;
- *Section 2: Site Background*, provides a description of the Site's physical setting, geology and hydrogeology, and a summary of previous site investigation activities carried out to date;
- *Section 3: Soil Gas Investigation Activities*, provides a description of the soil gas investigation activities and procedures;
- *Section 4: Soil Gas Investigation Results*, presents the results of geotechnical testing and soil gas analysis;
- *Section 5: Discussion and Conclusions*, presents the development of site-specific soil gas cleanup levels and provides an updated comparison of VOCs in soil gas samples to the their respective site-specific soil gas cleanup levels;
- *Section 6: Recommendations*, provides recommendations for soil remedial measures;
- *Section 7: Closure*; and
- *Section 8: References*.

Tables, Figures and Appendices are attached at the end of this document.



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1.2 Investigation Objectives

The objective of this investigation was to assess current VOC soil gas concentrations in vadose zone soils from ground surface to an approximate depth of 5 feet below ground surface (bgs). The results of this soil gas investigation were used to develop and/or identify the following as discussed later in this report:

- Site-specific soil gas cleanup levels; and
- Areas requiring soil remediation based on detection of vinyl chloride (VC) and tetrachloroethylene (PCE) above the developed site-specific soil gas cleanup levels.



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2. SITE BACKGROUND

2.1 Physical Setting

APC operates a plating shop for small metallic components at 9636 Ann Street in the City of Santa Fe Springs, California (**Figures 1 & 2**). The Site consists of an approximately 17,000 square foot concrete tilt-up building, situated on approximately 1.25 acres. The plating facility specializes in the use of fused tin and tin/lead alloys using electro- and electroless plating. Nickel and copper are the most commonly used metals. Precious metal plating is also performed using silver, gold, tin, zinc, and aluminum. Several plating lines with associated tanks are located within the facility.

For purposes of discussion and points of reference, the Site can be divided into six main areas, described as follows (**Figure 2**):

- Administrative offices, located in the northwestern area of the building;
- Shipping, receiving and inspection room, located in the northeastern area of the building;
- Main plating facility, occupying the rest of the building that includes lines one through five, the floor channels, the maintenance room and the maintenance stockroom;
- Outside storage, located to the east of the building that includes from north to south: the former PCE above ground storage tank (AST), empty drum storage area, a chemical storage area and a second area of chemical storage located in the southeastern corner of the Site;
- Wastewater treatment area, located to the south of the building that includes: holding tanks, clarifiers, filter press, batch neutralization tanks, sludge dryer, cyanide destruction unit, stripping department and ion exchange units. The former vapor degreaser was also located in this area; and,
- Employee parking and vacant land, located to the east of the outside storage.

2.2 Site Geology and Hydrogeology

The Site is underlain with artificial fill composed primarily of sandy silt and clayey silt with occasional silty clay from ground surface to an approximate depth of 7 feet bgs. At approximately 7 feet bgs a concrete pad is encountered, which varies in thickness between 4 and 18 inches. The concrete pad is interpreted to represent the base of a large oil product waste above ground storage tank (AST), which was observed to cover the Facility in a 1936 aerial photograph (Komex , 2005). Underlying the concrete pad is a silt and clay layer that extends to approximately 25 feet bgs. Below the silt and clay layer is a sand and gravel layer that extends to at least 48 feet bgs.



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First groundwater beneath the facility has been historically encountered between 35 and 40 feet bgs, which corresponds to the Gaspur Aquifer. Based on groundwater elevations measured in on-site monitoring wells in May of 2007, groundwater flows toward the southwest and south-southeast at an approximate gradient of 0.003 feet per foot (ft/ft) (WorleyParsons, 2007).

2.3 Previous Site Investigations

The extent of contamination in the subsurface soil beneath the Facility has been investigated by Dames and Moore (Dames and Moore, 1999), URS (URS, 2002), Komex (Komex, 2005) and WorleyParsons Komex (WorleyParsons Komex, 2006) since 1994. Based on the results of these investigations, the fill material above the concrete pad is impacted by petroleum hydrocarbons and fuel VOCs, chlorinated solvents and metals. The petroleum hydrocarbons and fuel VOCs detected in the fill material are likely unrelated to APC operations because fuels are not presently nor have they historically been stored or handled at the Facility, the Facility was formerly occupied by a large oil product waste AST, and to the immediate south of the Facility is a TOSCO (former Unocal) facility (URS, 2002). The chlorinated solvent compound detections, in particular PCE and trichloroethene (TCE) and their degradation compounds (cis-1,2-dichloroethene (cis-1,2-DCE) and VC) are consistent with past releases at the APC facility.

A Human Health Risk Assessment (HHRA) was performed for the facility by Mearns Consulting LLC in 2006. The results of the HHRA are presented as Appendix A of the Additional Facilities Investigation Report dated June 30, 2006 (WorleyParsons Komex 2006). The objective of the HHRA was to evaluate potential health risks to human receptors posed by concentrations of 54 constituents detected at least one time in the top 10 feet of the soil matrix. The results of the HHRA indicated that the estimated risks of the 15 carcinogenic constituents evaluated are less than the target risk value of 1×10^{-5} , except for arsenic, VC and PCE. The estimated risk for arsenic via the oral and dermal contact exposure routes was 2.42×10^{-4} . The HHRA established that arsenic was never used on-site for processing or created as a waste by-product and that arsenic is found to occur naturally in soils throughout Southern California and concentrations detected beneath the facility were typical of background concentrations (Marrett, 1992). Since the Facility is an operating industrial facility, which is predominately covered with concrete or asphalt, the HHRA concluded that the likelihood of exposure to arsenic via the oral and dermal exposure route is very low.

A draft Corrective Measures Proposal (CMP) dated February 5, 2007 was prepared by WorleyParsons Komex (2007) at the request of the DTSC to address VC and PCE-impacted vadose zone soil. The request was made by the DTSC during a meeting on August 22, 2006 between the DTSC, APC and WorleyParsons Komex to discuss site closure requirements. The DTSC requested that the following items be included in the CMP: 1) an illustration of the degradation pathways of PCE; 2) an evaluation of the impacts of residual VOC concentrations in soil beneath the Facility to groundwater; 3) an evaluation of the potential risks to human health from the future degradation of vapor-phase PCE, TCE and DCE to VC; and 4) recommended remedial measures. Based on modeling results performed in



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conjunction with the CMP, two areas were identified where predicted VC concentrations would exceed the acceptable risk threshold of 1×10^{-5} . The first area was in vicinity of the former vapor degreaser and the other area was adjacent to the batch neutralization tank and stripping department. In the CMP it was recommended that a soil vapor extraction (SVE) program be implemented at these areas to remediate VOC-impacted soil. SVE was considered the most feasible and effective remediation technology given that the facility is an operating industrial facility.

The DTSC initially provided comments to the CMP in letters dated April 30, 2007 and September 25, 2009. In the letter dated September 25, 2009, the DTSC had requested that additional site characterization be performed to further delineate the soil gas plume in the vadose zone.

WorleyParsons provided responses to DTSC comments in a letter dated December 9, 2009. The DTSC, in a letter dated June 17, 2010, determined that WorleyParsons' response to comments were acceptable and provided comments on the engineering design of the SVE system, which were not provided in previous letter correspondence. In order to save time and move the project forward, the DTSC proposed that DTSC and APC meet to resolve the comments on the SVE system. On September 9, 2010, a meeting was held between the DTSC, APC and WorleyParsons. In this meeting, the DTSC indicated that AOPCs needed to be evaluated for remediation based on current VOC soil gas concentrations rather than relying on historical concentrations or modeled results as presented in the CMP. In response to their request, WorleyParsons, on behalf of APC, submitted a Work Plan for Soil Gas Confirmation Sampling (WorleyParsons 2011) to the DTSC for review and approval. Approval of the Work Plan was issued by the DTSC in a letter dated April 3, 2012.



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3. SOIL GAS INVESTIGATION ACTIVITIES

This soil gas investigation was conducted in general accordance with the DTSC-approved Work Plan (WorleyParsons 2012). Soil gas investigation activities included the following components:

- Pre-Field Activities;
- Borehole Drilling;
- Geotechnical Soil Sampling;
- Soil Gas Sampling; and
- Investigative-Derived waste Disposal.

The soil gas investigation activities are described in the following sections. The results of soil gas investigation are provided in **Section 4**.

3.1 Pre-Field Activities

WorleyParsons coordinated with APC, DTSC, our subcontractors and other concerned parties for the proposed investigation activities. The proposed schedule for field activities at the Site was coordinated with on-Site personnel as needed. WorleyParsons conducted a visual site reconnaissance to mark borehole locations and to identify underground or overhead utilities in the work area. On May 23, 2012, Spectrum Geophysics (Spectrum) of Burbank, California surveyed an approximate 5-foot by 5-foot area around all proposed borehole locations using subsurface locating equipment. All 11 borehole locations were cleared of subsurface anomalies. The locations of underground utilities identified on-Site were marked as a precautionary measure prior to commencement of the drilling program. Where necessary, alternate borehole locations were marked and cleared by Spectrum. WorleyParsons notified Dig Alert of Southern California, a service that notifies all participating utility companies of our planned ground disturbance activities. In response to this notification, all participating utility companies were required to mark the location of their utilities within 48 hours of the Dig Alert notification.

3.2 Borehole Drilling

Eleven boreholes were advanced on May 23, 2012 by Interphase Environmental, a subcontractor to WorleyParsons, using a direct-push drill rig (**Table 1**). The soil boreholes were located in close proximity to previous boreholes B-1, B-7, B 17, B-37 through B-39, B-40, B-42, and B-46 through B-48, as shown on **Figure 2**. These borehole locations were selected based on historical detections of VC and PCE in soil gas above their respective screening levels of 1.2 and 21 µg/L, which corresponds to a target risk value of 1×10^{-5} . These screening levels were developed by the DTSC (2012) for this investigation using the J&E soil screening model and the model's default values for United States Department of Agriculture (USDA) silty loam (SIL) soil type.



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All of the boreholes were advanced to a depth of 5.5 feet bgs, except for four boreholes (SVM-1, SVM-2, SVM-3 and SVM-4), which met refusal at approximately 4 feet bgs due to the presence of the concrete pad. Field borehole logs are provided in **Appendix 1**.

3.3 Geotechnical Soil Sampling

Soil samples for geotechnical analysis were collected on May 23, 2012, from five (SVM-4, SVM-7, SVM-8, SVM-10 and SVM-11) of the eleven boreholes. The geotechnical analysis results were used to develop site-specific soil gas cleanup levels as discussed later in **Section 5**. Boreholes for soil sampling were selected in different areas across the Facility as to provide a representation of soil conditions throughout the Facility. Soil sampling was performed prior to soil gas probe installation within the boreholes. Soil samples were collected at approximately 5 feet bgs using a 1 ¾-inch diameter by 4-foot long acetate sleeve. Soil samples were described for lithologic properties using the Visual-Manual Method (American Standards for Testing and Materials (ASTM) D 2487). All soil samples were screened in the field for the presence of VOCs using a photoionization detector (PID). The results of field VOC headspace testing was recorded on the field borehole logs, which are provided in **Appendix 1**. Soil samples were submitted to PTS Laboratories in Santa Fe Springs and analyzed for the following physical properties:

- Air permeability (native and specific, porosity (total, effective, air-filled and water-filled), grain and bulk density, total pore fluid saturation using American Petroleum Institute (API) RP40;
- Total and Fraction Organic Carbon using Walkley-Black methodology;
- Moisture content using American Standards for Testing and Materials (ASTM) Method D2216;
- Atterberg Limits using ASTM Method D4318;
- Grain size analysis using ASTM Method D422/D4464M.

3.4 Soil Gas Sampling

Soil gas probes were constructed in each of the eleven boreholes at depths varying between 3 and 5 feet bgs to collect soil gas samples. Probes were constructed with new ¼-inch outer diameter (OD) Teflon tubing and 2-inch stainless steel vapor implants. The vapor implants were emplaced within 6-12 inches of sand and the annular space within the borehole was sealed with bentonite chips hydrated in place. Soil gas probe construction details are presented in **Table 1**. Field borehole logs are provided in **Appendix 1**.

A minimum of 30 minutes of equilibration time was given before each probe was sampled. Soil gas samples were collected on May 23, 2012, in accordance with the "Active Soil Gas Investigations Advisory" prepared by the DTSC and LARWQCB dated January 28, 2003. A purge volume test was conducted by A & R Laboratories of Riverside, California to determine the optimal number of probe



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volumes to purge before collecting a sample. A & R Laboratories determined that one purge volume yielded higher concentrations of VOCs than three or seven purge volumes. Soil gas probes were purged and sampled at a flow rate of approximately 200 milliliters per minute (mL/min). A leak test was performed at each borehole location using isopropyl alcohol as a leak check compound. Soil gas samples were collected in glass syringes and submitted for analysis using A & R's on-Site mobile laboratory. All soil gas samples were analyzed for VOCs in accordance with United States Environmental Protection Agency (USEPA) Method 8260B.

When soil gas sampling was completed, the Teflon tubing was removed from the borehole and the borehole was completed to match adjacent surface conditions with either concrete or asphalt to flush with grade. Soil gas probes that yielded VOC concentrations that exceeded either the VC or PCE screening levels were installed as permanent probes, and were completed at the surface with a 6-inch diameter traffic-rated flush-mount well box.

3.5 Quality Assurance / Quality Control Sampling

Quality assurance/quality control (QA/QC) field duplicate and ambient air field blank soil gas samples were collected by A & R Laboratories and analyzed using Modified USEPA Method 8260B.

In addition to laboratory analytical QA/QC, a purge volume test was conducted at SVW-10 to determine the appropriate purge volume for sampling. One, three and seven volumes of air were sequentially purged from the line. A one purge volume protocol was selected. In accordance with DTSC protocol, leak tests were also conducted to ensure a seal between the atmosphere and subsurface (DTSC, 2003). Isopropyl alcohol was used as a tracer.

3.6 Investigative-Derived Waste Disposal

Soil cuttings generated during this project were contained within one Department of Transportation (DOT) approved 55-gallon drums. The drum was appropriately labeled and temporarily stored on-Site prior to disposal. The drum was removed from the Site on July 18, 2012 and was transported off-Site to Soil Safe in Adelanto, CA, by K-VAC Environmental, Inc., a licensed waste hauler. The non-hazardous soils manifest is provided in **Appendix 2**.



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4. SOIL GAS INVESTIGATION RESULTS

4.1 Lithologic Conditions

Based on lithologic data obtained from soil boreholes (**Appendix 1**) completed during this investigation, the Site lithology was confirmed to primarily consist of artificial fill composed of clayey silt and silty clay from the ground surface to an approximate depth of 5.5 feet bgs. The concrete pad, which was encountered during previous investigations at approximately 7 feet bgs, was encountered in the northeast area of the property at approximately 4 feet bgs.

4.2 Geotechnical Parameters

Five soil samples were collected from boreholes SVM-4, SVM-7, SVM-8, SVM-10 and SVM-11 and submitted to PTS Laboratories for geotechnical analysis. The geotechnical analysis results were used to develop site-specific soil gas cleanup levels as discussed later in **Section 4**. The results of select physical properties analyzed for during this investigation and a previous investigation (Komex, 2005) are summarized in **Table 2**. The complete physical properties data report is included in **Appendix 3**.

All of the soil samples collected were classified as sandy lean clay (CL) according to ASTM D2488. The moisture content and dry bulk density of the samples ranged from 14.8 to 17.9% and 1.60 to 1.75 grams per cubic centimeters (g/cc), respectively. The total and water filled porosity ranged from 0.348 to 0.398 and 0.227 to 0.299, respectively. The effective permeability to air for the samples ranged from 0.06 to 0.21 millidarcy. The effective hydraulic conductivity of the samples ranged from 1.34×10^{-6} to 3.04×10^{-6} centimeters per second (cm/sec).

4.3 Soil Gas Analytical Results

Headspace screening with the PID detected organic vapors ranging from 25 to 4,500 ppm. The maximum PID reading of 4,500 ppm was detected at approximately 5.5 feet bgs in borehole SVW-9 located in the southeast corner of the Site. None of the soil samples inspected during the investigation showed visual signs of contamination or soil staining; however, a solvent odor was detected in soil samples collected at approximately 5.5 feet bgs from boreholes SVM-7, -8, and -9.

Soil gas samples were collected from soil gas probes installed at each borehole location and analyzed for VOCs using USEPA Method 8260B. The laboratory analytical results for VOCs in soil gas that were detected above the laboratory reporting limits (RLs) are shown in **Table 3**. The laboratory analytical results for VC and PCE are summarized on **Figure 3**. A copy of the laboratory analytical report and COC are included in **Appendix 4**.



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4.3.1 Volatile Organic Compounds

The primary VOCs detected (*i.e.*, most prevalent VOCs detected at the Site) included PCE, TCE, cis-1,2-dichloroethene (cis-1,2-DCE) and VC. These VOCs are believed to be associated with previous Facility operations. The analytical results for individual VOCs detected in soil gas samples above the laboratory RL are discussed below.

- PCE was detected in six soil gas probes at concentrations ranging from 0.27 µg/L (SVM-3) to 120 µg/L (SVM-5 and SVM-6).
- TCE was detected in five soil gas probes at concentrations ranging from 0.2 µg/L (SVM-3) to 24 µg/L (SVM-6).
- Cis-1,2-DCE was detected in nine soil gas probes at concentrations ranging from 0.094 µg/L (SVM-5) to 510 µg/L (SVM-9).
- Trans-1,2-Dichloroethene (Trans-1,2-DCE) was detected in three soil gas probes at concentrations ranging from 2.5 µg/L (SVM-5) to 210 µg/L (SVM-9).
- 1,1-Dichloroethene (1,1-DCE) was detected in three soil gas probes at concentrations ranging from 0.17 µg/L (SVM-5) to 9.9 µg/L (SVM-9).
- 1,1-Dichloroethane (1,1-DCA) was only detected in soil gas probe SVW-9 at a concentration of 12 µg/L.
- VC was detected in six soil gas probes at concentrations ranging from 0.51 µg/L (SVM-11) to 1,400 µg/L (SVM-9).
- Benzene was only detected in soil gas probe SVW-7 at a concentration of 0.64 µg/L. The detection of benzene is most likely due to the use of new stainless steel probe tips, which can occasionally carry trace amounts of benzene from the manufacturing process.



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5. DISCUSSION AND CONCLUSIONS

The objective of this soil gas investigation was to assess current soil gas concentrations in the vadose zone soils at the Facility so as to identify areas requiring soil remediation based on detection of VC and PCE above site-specific soil gas cleanup levels.

Site-specific soil gas cleanup levels were developed using the J&E soil gas screening model and the physical properties results of soil samples collected during this and previous investigations (**Table 2**). The values for select physical properties which resulted in the most conservative soil gas cleanup levels, as well as, model default values for building properties and the industrial/commercial exposure scenario were used as input parameters. Model input parameters are summarized in the table below and the J&E model inputs and outputs are provided in **Appendix 5**.

Input Parameter	Symbol	Value	Rationale
Depth below grade to bottom of enclosed floor space	L_F (cm)	15	Slab on grade building construction
Soil gas sampling depth below grade	L_S (cm)	152	Approximately 5 feet (representative of samples collected at the Site) DTSC recommended sampling depth
Average soil temperature	T_S ($^{\circ}$ C)	24	DTSC Vapor Intrusion Guidance Default
Vadose zone soil vapour permeability	k_V (cm^2)	1.00×10^{-8}	Default value for silty soils
Vadose zone soil dry bulk density	ρ_b (g/cc)	1.76	Maximum value of site-specific sample results
Vadose zone soil total porosity	n^V (unitless)	0.398	Maximum value of site-specific sample results
Vadose zone soil-water-filled porosity	θ_W^V (cm^3/cm^3)	0.227	Minimum value of site-specific sample results
Average vapour flow rate into building	Q_{soil}	5	DTSC Vapor Intrusion Guidance Default
Averaging time for carcinogens	AT_C (years)	70	DTSC Vapor Intrusion Guidance Default



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Averaging time for noncarcinogens	AT _{NC} (years)	25	DTSC Vapor Intrusion Guidance Default
Exposure Duration	ED (years)	25	DTSC Vapor Intrusion Guidance Default for Industrial Scenario
Exposure Frequency	EF (days/yr)	250	DTSC Vapor Intrusion Guidance Default for Industrial Scenario

The site-specific cleanup goals for VC and PCE are 3.1 µg/L and 57 µg/L, respectively. These soil gas cleanup levels correspond to a target risk value of 1×10^{-5} . It should be noted that the cancer risk is shown as 2E-5 in each J&E model output, as the air exchange rate in the model is set at the residential default of 0.5 per hour; the actual risk should be 1E-5 when adjusted to the commercial/industrial default of 1 per hour.

Based on an updated comparison of detected concentrations of VC and PCE in soil gas samples to the their respective site-specific soil gas cleanup levels, three locations have been identified requiring soil remediation: 1) the area in the vicinity of the employee parking lot (SVM-5 and SVM-6); 2) the area to the adjacent west of the Empty Drum Area (SVM-7); and 3) the area in the southeast corner of the property (SVM-8 and SVM-9), between the Batch Treatment Neutralization Tanks and the the Southern Chemical Storage Area.



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6. RECOMMENDATIONS

Based on the soil gas investigation results and the findings presented in the CMP (WorleyParsons Komex, 2007), the following soil remedial measures are recommended:

- Implementation of a soil vapor extraction (SVE) program at the Site. The SVE program should include the following:
 - Installation of either two vertical SVE wells or one horizontal SVE well in the vicinity of SVM-5 and SVM-6 to a total depth of 5 feet bgs (see **Figure 4**);
 - Installation of either two vertical SVE wells or one horizontal SVE well in the vicinity of SVM-7 to a total depth of 5 feet bgs (see **Figure 4**);
 - Installation of two SVE wells in the vicinity of SVM-9: one to a total depth of 7 feet bgs and the other installed to a depth of approximately 30 feet bgs to address residual VOC concentrations detected in soil samples collected during the installation of monitoring well MW-4 (see **Figure 4**);
 - Installation of a South Coast Air Quality Management District (SCAQMD)-permitted SVE system consisting of a skid- or trailer-mounted 200 standard cubic feet per minute (scfm) blower capable of at least 10-inches of mercury (in. Hg), a vapor-liquid separator, a transfer pump and two 1000-pound vapor-phase granular activated carbon(GAC) vessels;
 - Operation of the SVE system until soil gas concentrations of VC and PCE in existing soil gas probes have been reduced to levels below the site-specific soil gas cleanup levels, SVE system influent concentrations reach asymptotic levels or the one year operational period allowed under the SCAQMD permit is reached; and
 - Collection of post-remediation soil gas samples at existing soil gas probes.



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**ASSOCIATED PLATING COMPANY
SOIL GAS INVESTIGATION REPORT
9636 ANN STREET, SANTA FE SPRINGS, CALIFORNIA 90670**

7. CLOSURE

We trust that this Report satisfies your current requirements and provides suitable documentation for your records. If you have any questions or require further details, please contact the undersigned at any time at 714-849-9605.

Prepared by
WorleyParsons

Janaka Jayamaha
Project Manager

The seal is circular with the following text:
PROFESSIONAL ENGINEER
STEVEN WINNERS
C 59362
EXP. 09/30/2014
CIVIL
STATE OF CALIFORNIA

Steve Winners, P.E.
Principal Environmental Engineer



**ASSOCIATED PLATING COMPANY
SOIL GAS INVESTIGATION REPORT
9636 ANN STREET, SANTA FE SPRINGS, CALIFORNIA 90670**

8. REFERENCES

- DWR, 1961. Planned Utilization of the Groundwater Basins of the Coastal Plain of Los Angeles County; Appendix A, Groundwater Geology, Bulletin 104, June.
- Dames & Moore, 1999. Phase I Environmental Site Assessment and Limited Environmental Compliance Assessment, Associated Plating Company, 9636 Ann Street, Santa Fe Springs, California 90670. September 28.
- Komex, 2005. Facility Investigation Report, Associated Plating Company, Santa Fe Springs, California. May 9.
- WorleyParsons Komex, 2006. Additional Facility Investigation Report, Associated Plating Company, Santa Fe Springs, California. June 30.
- WorleyParsons Komex, 2007. Corrective Measures Proposal, Associated Plating Company, Santa Fe Springs, California. February 2.
- WorleyParsons, 2007. Second Quarter 2007 Groundwater Monitoring Report, Associated Plating Company, Santa Fe Springs, California. June 14.
- WorleyParsons, 2011. Work Plan for Confirmation Soil Gas Sampling, Associated Plating Company, Santa Fe Springs, California. June 14.
- URS, 2002. Subsurface Investigation Report, Associated Plating Company, Inc., 9636 Ann Street, Santa Fe Springs, California 90670. Dated April 23, 2002.



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Tables



Table 1

Soil Vapor Probe Construction Details

Associated Plating Company, Santa Fe Springs, California

Well ID	Installation Date	Total Depth	Depth of Probe	Sand Interval	Bentonite Seal Interval	Set as Permanent
		(ft bgs)	(ft bgs)	(ft bgs)	(ft bgs)	
SVM-1	5/23/12	4.0	4	3.5 to 4	surface to 3.5	No
SVM-2	5/23/12	4.0	4	3.5 to 4	surface to 3.5	No
SVM-3	5/23/12	4.0	4	3.5 to 4	surface to 3.5	No
SVM-4	5/23/12	4.5	4.5	4 to 4.5	surface to 4	No
SVM-5	5/23/12	5.5	5	4.5 to 5.5	surface to 4.5	Yes
SVM-6	5/23/12	5.5	5	4.5 to 5.5	surface to 4.5	Yes
SVM-7	5/23/12	5.5	5	4.5 to 5.5	surface to 4.5	Yes
SVM-8	5/23/12	5.5	5	4.5 to 5.5	surface to 4.5	Yes
SVM-9	5/23/12	5.5	5	4.5 to 5.5	surface to 4.5	Yes
SVM-10	5/23/12	5.5	5	4.5 to 5.5	surface to 4.5	No
SVM-11	5/23/12	5.5	3	2.5 to 3.5	surface to 2.5	No

Notes:

Soil vapor probes are constructed of 1/4" OD Teflon tubing and a 2" stainless steel filter tip.

Permanent soil vapor probes are completed at the surface with a 6" diameter flush-mount well box.

Abbreviations:

ft bgs = feet below ground surface



Table 2
Soil Physical Properties Results
Associated Plating Company, Santa Fe Springs, California

Borehole Location	Depth (ft bgs)	Sample Date	Moisture Content (% wt)	Density		Porosity (1)		Total Organic Carbon (mg/kg)	Total Pore Fluid Saturations (2) (% Pv)	Effective Permeability to Air (millidarcy)	Specific Permeability to Air (3) (millidarcy)	Specific Permeability to Water (4) (millidarcy)	Hydraulic Conductivity (5) (cm²)
				Bulk (g/cc)	Grain (g/cc)	Total (cm³/cm³)	Water Filled (cm³/cm³)						
B-3	1.00	9/9/04	12.9	1.76	2.71	0.351	0.227	4,700	64.6	-	-	-	2.25E-07
B-3	7.00	9/9/04	15.6	1.76	2.70	0.349	0.261	6,650	78.8	-	-	-	2.59E-07
SVW-4	4.35	5/23/12	16.8	1.66	2.72	0.389	0.279	1,600	71.7	0.12	12.0	1.36	1.34E-06
SVW-7	4.30	5/23/12	17.0	1.65	2.68	0.386	0.280	6,400	72.3	0.06	9.63	1.58	1.56E-06
SVW-8	4.30	5/23/12	17.9	1.60	2.65	0.398	0.286	14,400	71.7	0.12	16.3	2.12	2.08E-06
SVW-10	4.30	5/23/12	14.8	1.75	2.69	0.348	0.259	6,100	74.3	0.10	16.8	1.63	1.62E-06
SVW-11	4.35	5/23/12	17.5	1.71	2.70	0.368	0.299	4,550	81.1	0.21	16.0	3.05	3.04E-06

Notes:

(1) Total porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids, native sample.

(2) Water = 0.9996 g/cc.

(3) Native State = as received with pore fluids in place

(4) Specific = without moisture

(5) Permeability to water and conductivity measured at saturated conditions.

Highlighted columns are input parameters in the DTSC Johnson and Ettringer Soil Gas Screening Model.

Abbreviations:

ft bgs = feet below ground surface

% wt = percent by weight

g/cc = grams per cubic centimeter

cm³/cm³ = cubic centimeter per cubic centimeter

mg/kg = milligrams per kilogram

% Pv = pore volume in percent



Table 3
Soil Gas VOC Analytical Results
Associated Plating Company, Santa Fe Springs, California

Well ID	Date	Time	Benzene	PCE	TCE	1,1-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
SVM-1	5/23/12	11:40	<0.05	<0.1	0.68	<0.1	0.17	10	2.5	0.88
SVM-2	5/23/12	12:01	<0.05	<0.1	<0.1	<0.1	<0.1	0.70	<0.1	<0.05
SVM-3	5/23/12	12:22	<0.05	0.27	0.2	<0.1	<0.1	0.38	<0.1	<0.05
SVM-4	5/23/12	12:44	<0.05	<0.1	<0.1	<0.1	<0.1	0.22	<0.1	<0.05
SVM-5	5/23/12	13:06	<0.05	120	9.3	<0.1	<0.1	0.094 J	<0.1	<0.05
SVM-6	5/23/12	13:27	<0.5	120	24	<1.0	<1.0	<1.0	<1.0	<0.5
SVM-7	5/23/12	14:11	0.56	4.6	<1.0	<1.0	<1.0	0.59 J	<1.0	290
SVM-7 DUP	5/23/12	14:11	0.64	4.4	<1.0	<1.0	<1.0	0.85 J	0.55 J	320
SVM-8	5/23/12	14:56	<0.5	0.56 J	<1.0	<1.0	<1.0	<1.0	<1.0	12
SVM-9	5/23/12	15:37	<0.5	48	16	12	9.9	510	210	1400
SVM-10	5/23/12	10:00	<0.05	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	<0.05
SVM-11	5/23/12	11:18	<0.05	<0.1	<0.1	<0.1	<0.1	0.18	24	2.5
Site-specific Screening Levels:			NA	57	NA	NA	NA	NA	NA	5.1

Notes:

All concentrations are in micrograms per liter ($\mu\text{g/L}$)

Detections are listed in **bold**; Detections above site-specific screening levels are highlighted.

J = The analyte was detected above the method detection limit (MDL) but below the laboratory reporting limit (RL)

Compounds not listed here were not detected above their respective laboratory RLs in any of the soil gas samples analyzed.

Abbreviations:

PCE = Tetrachloroethene

1,1-DCE = 1,1-dichloroethene

TCE = Trichloroethene

cis-1,2-DCE = cis-1,2-dichloroethene

1,1-DCA = 1,1-dichloroethane

trans-1,2-DCE = trans-1,2-dichloroethene

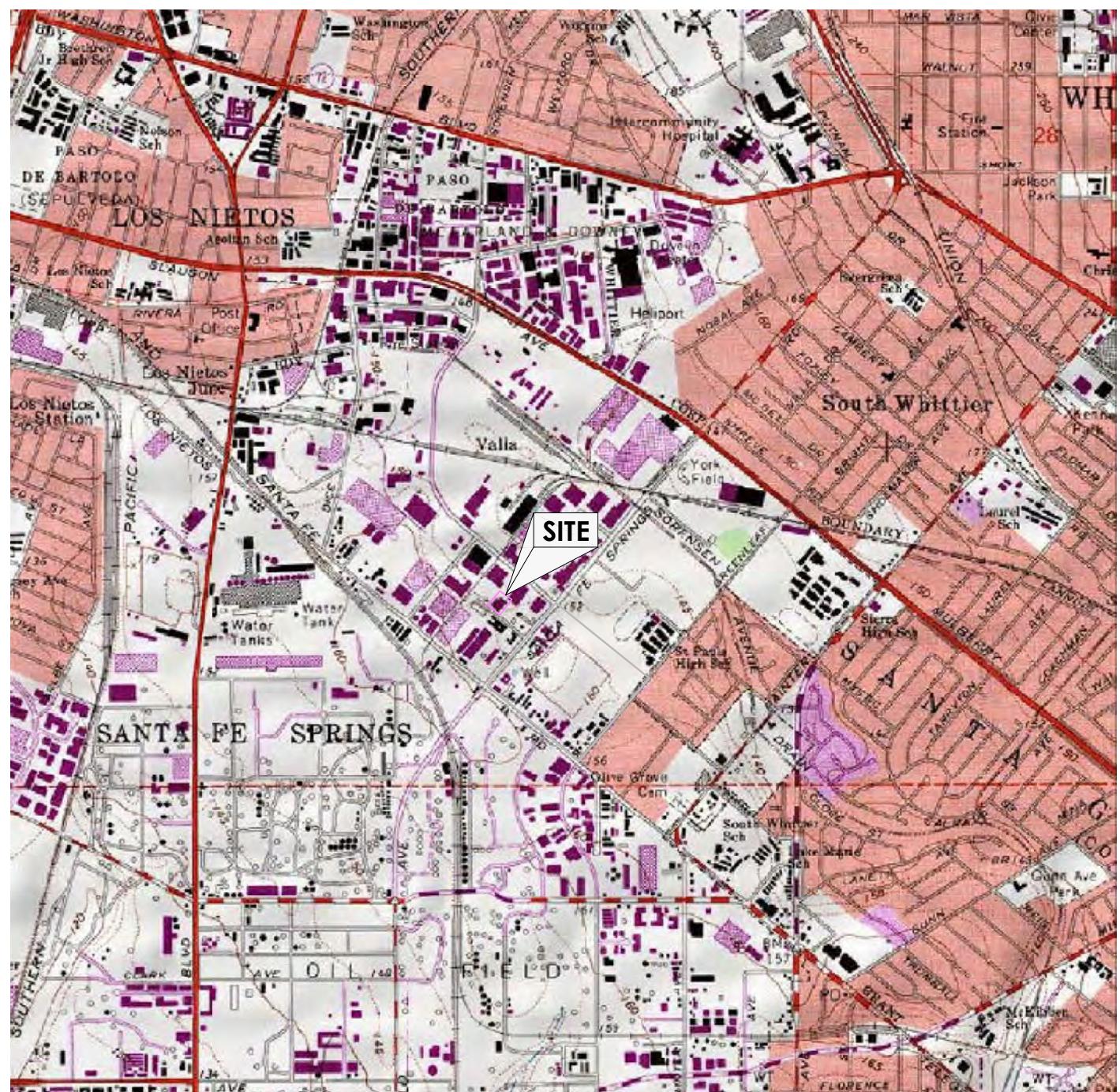


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Figures



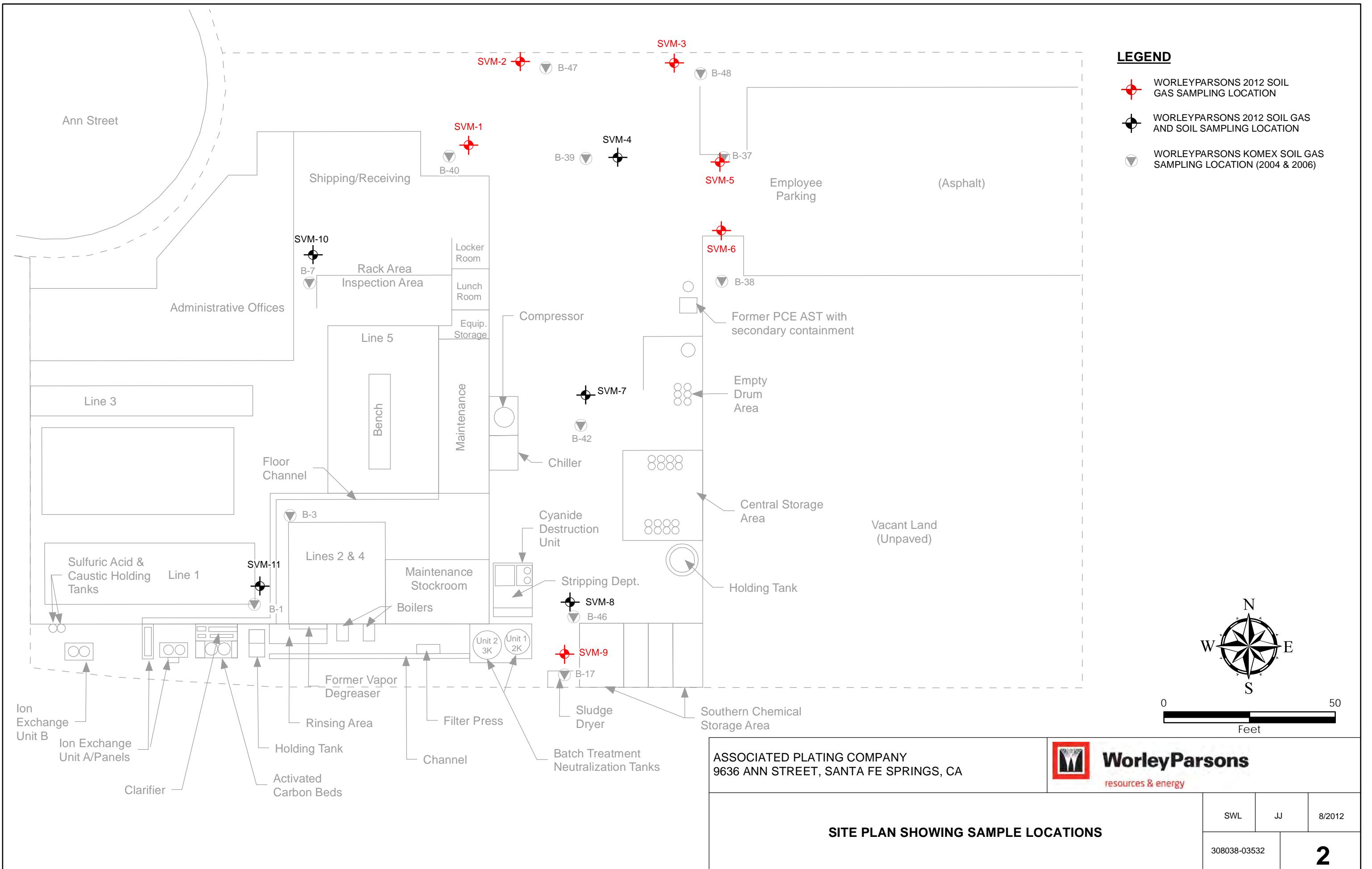
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7.5 Minute Quadrangle, 1998



0 2,000

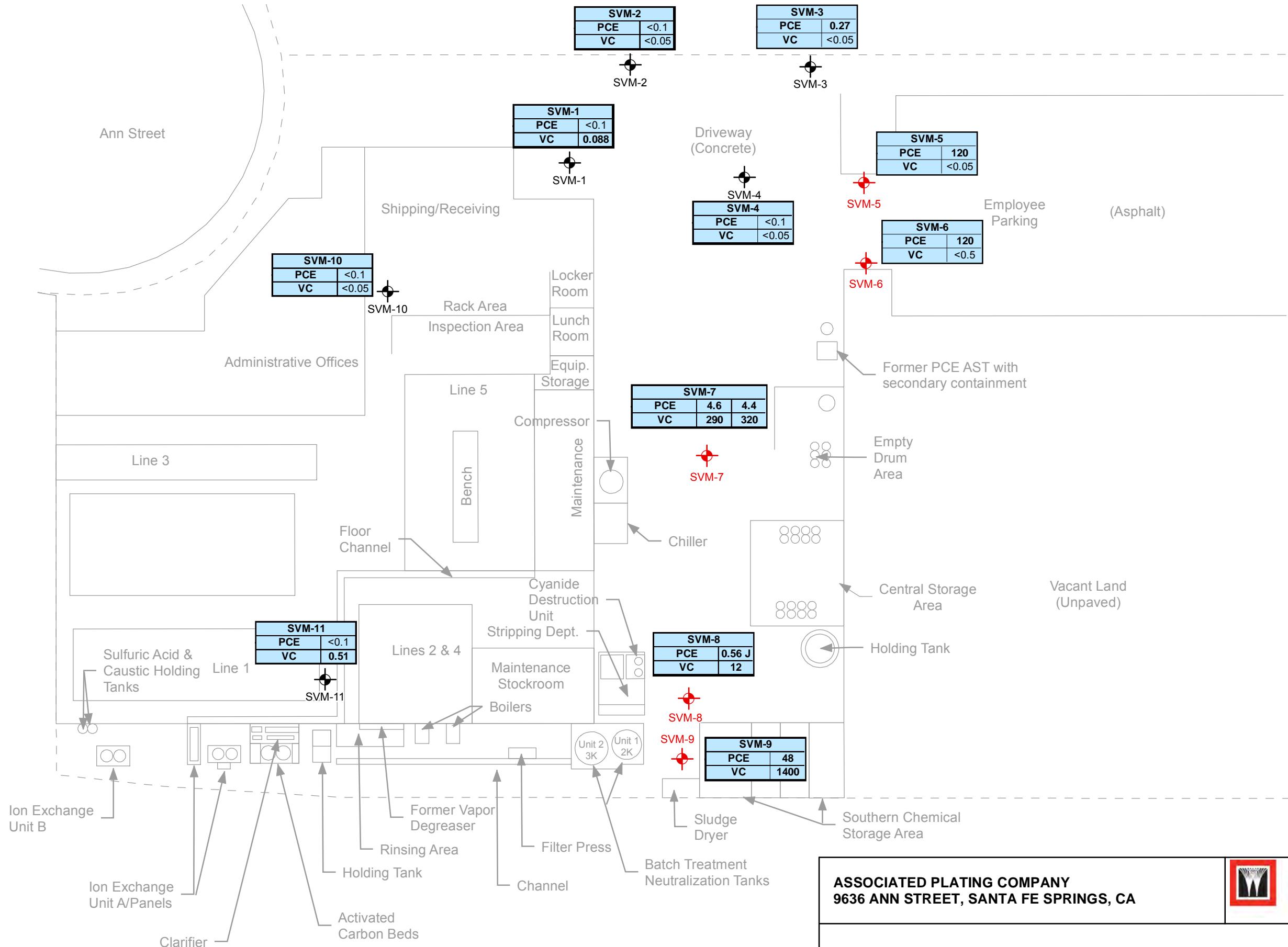
Approximate Scale in Feet

ASSOCIATED PLATING COMPANY 9636 ANN STREET, SANTA FE SPRINGS, CA	 WorleyParsons resources & energy		
SITE LOCATION MAP	SWL	JJ	6/2011
	308006-00069	1	



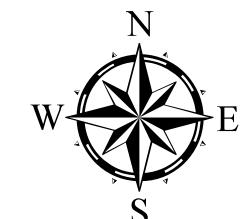
LEGEND

-  WORLEYPARSONS 2012 PERMANENT SOIL GAS PROBE
-  WORLEYPARSONS 2012 TEMPORARY SOIL GAS PROBE



NOTE

- 1) All concentrations in $\mu\text{g/L}$
- 2) PCE site specific soil gas clean-up level = $57 \mu\text{g/L}$
- 3) VC site specific soil gas clean-up levels = $3.1 \mu\text{g/L}$
- 4) All locations approximate



0
50
Feet

ASSOCIATED PLATING COMPANY
9636 ANN STREET, SANTA FE SPRINGS, CA



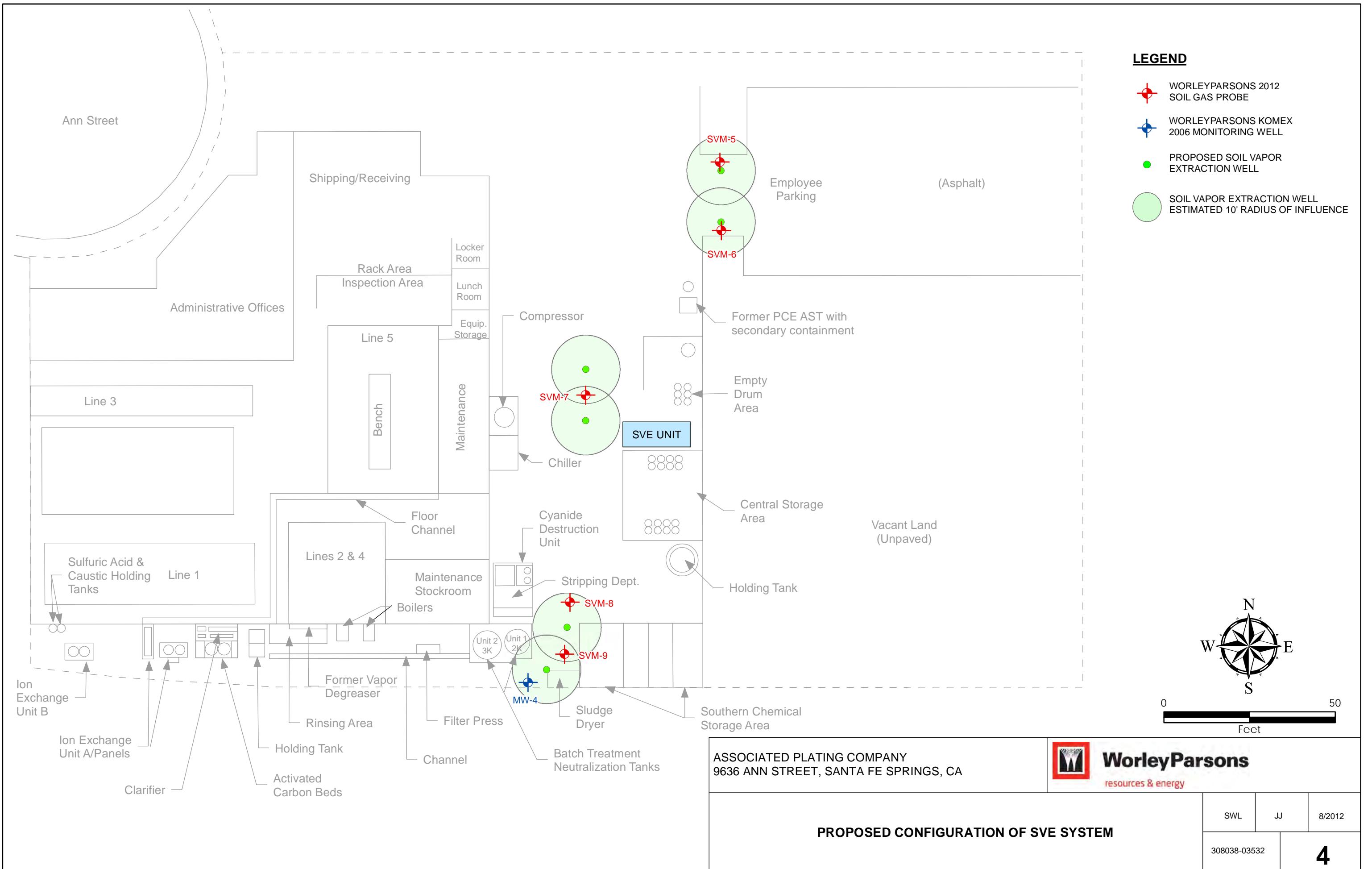
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SWL JJ 8/2012

308038-03532

3

PCE AND VC SOIL GAS ANALYTICAL RESULTS





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Appendix 1 Field Borehole Logs



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Log of Borehole SVM-1

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled	5/23/12					Well Location:		
Drilling Method:	Direct Push					Elevation of Ground Surface: TOC:		
Drilling Contractor:	Interphase Environmental					Initial Water Level:		
Sampling Method:	Acetate Sleeve 1 3/4" dia					Static Water Level:		
Geologist: <u>A. Cherene</u>	Reviewer:		Total Depth: <u>4'</u>	Well Depth: <u>4'</u>				
Depth, feet	Sample Number (■ = retained)	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram
0							Concrete	
2								Abandoned & patched w/ concrete.
4	SVM-1-4	25	1003	Refusal @ 4'			Grey clayey silt. moist. soft.	#8 Bentonite chips
6								sand
8								probe @ 4'
10								
12								



Log of Borehole SVM-2

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled <u>5/23/12</u>							Well Location:						
Drilling Method: <u>Direct Push</u>				Elevation of Ground Surface:		TOC:							
Drilling Contractor: <u>Interphase Environmental</u>				Initial Water Level:									
Sampling Method: <u>Acetate Sleeve 1 3/4" dia</u>				Static Water Level:									
Geologist: <u>A.Cherene</u>		Reviewer:		Total Depth: <u>4'</u>			Well Depth: <u>4'</u>						
Depth, feet	Sample Number <small>(■ = retained)</small>	Sample Type	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram				
0								Concrete					
2													
4	SVM-2M	■		0.0	1015			Grey Brown clayey silt stiff. moist.	Abandoned & patched w/ concrete #8 Bentonite chips sand probe @ 4'				
6													
8													
10													
12													



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Log of Borehole SVM-3

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled	5/23/12						Well Location:		
Drilling Method:	Direct Push				Elevation of Ground Surface:	TOC:			
Drilling Contractor:	Interphase Environmental				Initial Water Level:				
Sampling Method:	Acetate Sleeve 1 3/4" dia				Static Water Level:				
Geologist:	A. Cherene	Reviewer:			Total Depth: 4'	Well Depth: 4'			
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram
0								Concrete	
2									
4	SVM-3-A	■		0.0	1105			Grey brown silty clay soft to mod stiffness. moist. trace fine sand.	Abandoned & patched w/ concrete #8 Bentonite chips sand probe @ 4'
6									
8									
10									
12									



Log of Borehole SVM-4

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled <u>5/23/12</u>							Well Location:		
Drilling Method: <u>Direct Push</u>				Elevation of Ground Surface: TOC:					
Drilling Contractor: <u>Interphase Environmental</u>				Initial Water Level:					
Sampling Method: <u>Acetate Sleeve 1 3/4" dia</u>				Static Water Level:					
Geologist: <u>A.Cherene</u>		Reviewer:		Total Depth: <u>4.5'</u>		Well Depth: <u>4.5'</u>			
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram
0								Concrete	
2									
4	SVM-4-4 SVM-4-4.5	NA	1030					Grey brown silty clay. Mod stiffness. moist.	Abandoned & patched w/ concrete #8 Bentonite chips sand probe @ 4.5'
6									
8									
10									
12									



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Log of Borehole SVM-5

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled 5/23/12				Well Location:			
Drilling Method: Direct Push				Elevation of Ground Surface: TOC:			
Drilling Contractor: Interphase Environmental				Initial Water Level:			
Sampling Method: Acetate Sleeve 1 3/4" dia				Static Water Level:			
Geologist: A.Cherene		Reviewer:		Total Depth: 5.5'		Well Depth: 5'	
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification
0						Geologic Description	
2							
4							
6							
8							
10							
12							
<p>SVM-5-5.5</p> <p>Asphalt</p> <p>Grey brown silty clay. stiff. moist. Interbeds of sandy silt</p> <p>#8 Bentonite chips</p> <p>sand</p> <p>Probe @ 5'</p>							



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Log of Borehole SVM-6

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled <u>5/23/12</u>							Well Location:						
Drilling Method: <u>Direct Push</u>				Elevation of Ground Surface:		TOC:							
Drilling Contractor: <u>Interphase Environmental</u>				Initial Water Level:									
Sampling Method: <u>Acetate Sleeve 1 3/4" dia</u>				Static Water Level:									
Geologist: <u>A.Cherene</u>		Reviewer:		Total Depth: <u>5'-5"</u>		Well Depth: <u>5'</u>							
Depth, feet	Sample Number <small>(■ = retained)</small>	Sample Type	Blows / 6 inches	PID, ppm	Remarks/ Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram				
0								Asphalt					
2													
4								Reddish brown clayey silt. stiff. slightly moist.					
5.5													
6													
8													
10													
12													



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Log of Borehole SVM-7

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled	5/23/12						Well Location:		
Drilling Method:	Direct Push				Elevation of Ground Surface:	TOC:			
Drilling Contractor:	Interphase Environmental				Initial Water Level:				
Sampling Method:	Acetate Sleeve 1 3/4" dia				Static Water Level:				
Geologist:	A. Cherene		Reviewer:	Total Depth: 5.5'			Well Depth: 5'		
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram
0								Concrete	
2									
4								Medium grey silty clay and clayey silt. Moderate to stiff. Moist. Inter bedded.	
6									
8									
10									
12									

WELL LOG IMAGE 7407

SVM-7-5

SVM-7-5.5

200 Solvent over 0940

Completed w/
6" well box

#8 Bentonite
chips

sand

Probe @ 5'

Sheet 1 of 1



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Log of Borehole SVM-8

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled	5/23/12						Well Location:		
Drilling Method:	Direct Push				Elevation of Ground Surface:	TOC:			
Drilling Contractor:	Interphase Environmental				Initial Water Level:				
Sampling Method:	Acetate Sleeve 1 3/4" dia				Static Water Level:				
Geologist:	A. Cherene	Reviewer:			Total Depth:	5.5'	Well Depth: 5'		
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram
0								Concrete	
2									
4	SVM-8-5			748	Solvent odor			Medium grey brown clayey silt. Moderate stiffness. moist.	#8 Bentonite chips sand probe @ 5'
5.5	SVM-8-5.5			0910					
6									
8									
10									
12									



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Log of Borehole SVM-9

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled	5/23/12						Well Location:		
Drilling Method:	Direct Push				Elevation of Ground Surface:	TOC:			
Drilling Contractor:	Interphase Environmental				Initial Water Level:				
Sampling Method:	Acetate Sleeve 1 3/4" dia				Static Water Level:				
Geologist:	A. Cherene	Reviewer:					Total Depth: 5.5' Well Depth: 5'		
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks/ Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram
0	SVM-9-55							Concrete	Completed w/ 6" well box
2									#8 Bentonite chips
4								Reddish brown to Grey brown silt. Soft & wet	sand probe @ 5'
6									
8									
10									
12									

WELL LOG IMAGE 7407

Sheet 1 of 1



WorleyParsons Komex
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Log of Borehole SVM-10

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled	5/23/12					Well Location:	
Drilling Method:	Direct Push					Elevation of Ground Surface: TOC:	
Drilling Contractor:	Interphase Environmental					Initial Water Level:	
Sampling Method:	Acetate Sleeve 1 3/4" dia					Static Water Level:	
Geologist: A. Cherene	Reviewer:		Total Depth:	5.5'	Well Depth:	5'	
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks/ Time	Geologic Description	Well Diagram
0						Concrete	Abandoned & patched w/ concrete
2							#8 Bentonite chips
4	SVM-10.5			0.0	0830	Reddish brown clayey silt. Moist. stiff. Interbeds of light brown sandy silt.	sand probe @ 5'
6							
8							
10							
12							
Sheet <u>1</u> of <u>1</u>							



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Log of Borehole SVM-11

Project Name: APC

Project Location: 9636 Ann St.

Project No. 03532

Date(s) Drilled	5/23/12						Well Location:		
Drilling Method:	Direct Push				Elevation of Ground Surface:	TOC:			
Drilling Contractor:	Interphase Environmental				Initial Water Level:				
Sampling Method:	Acetate Sleeve 1 3/4" dia				Static Water Level:				
Geologist:	A. Cherene	Reviewer:			Total Depth: 5.5'	Well Depth: 5'			
Depth, feet	Sample Number (■ = retained)	Sample Type	Blows / 6 inches	PID, ppm	Remarks Time	Graphic Log	USCS Soil Classification	Geologic Description	Well Diagram
0								Concrete	
2									
4	SVM-11-5	■		281	0810			Grey-brown silty clay. Moist. Stiff.	Abandoned & Patched w/ concrete
6	SVM-11-5.5							Driller reports 2 ft of Water in the borehole	#8 Bentonite chips
8									sand
10									probe @ 3'
12									#8 Bentonite chips



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SOIL GAS INVESTIGATION REPORT
9636 ANN STREET, SANTA FE SPRINGS, CALIFORNIA 90670**

Appendix 2 Non-Hazardous Soils Manifest

SOIL SAFE OF CA - TPST

Non-Hazardous Soils

Manifest #

Generator and/or Consultant Generator's Name and Billing Address: Associated Plating Company, Inc. 9636 Ann Street Santa Fe Springs, CA 90670	Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #	
				Kvac Environmental	39521		
				Generator's Phone #:			
				Person to Contact:			
				FAX#	Customer Account Number		
				Consultant's Phone #:			
				Person to Contact: Greg Myers TPH-3179			
				FAX#:	Customer Account Number		
				Site Phone #:			
Designated Facility (Transport to): Name & Address: Soil Safe 12328 Hibiscus Adelanto CA 92301				Person to Contact:			
				FAX#:			
				Facility Phone #:			
				760-246-8001			
				Person to Contact:			
				Dellena Jafferey			
				FAX#:			
				760-246-8004			
				Transporter's Name and Mailing Address: K-VAC Environmental, Inc. 8910 Rochester Avenue Rancho Cucamonga CA 91730	Transporter's Phone #:	CAR000163097	
			909-476-2308				
			Person to Contact:				
			Diana Knifer				
			FAX#:	Customer Account Number			
			909-476-2408				
Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0-10% <input type="checkbox"/> 10-20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	1	DRUM METAL	2000		
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0-10% <input type="checkbox"/> 10-20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>			36410	36000	410
List any exception to items listed above:							
				Scale Ticket #	102811		
Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.							
Print or Type Name: Generator <input type="checkbox"/> Consultant <input checked="" type="checkbox"/> On behalf of ABC				Signature and Date:		Month Day Year July 18 2012 07/18/12	
Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.							
Print or Type Name: Jose M. Sauer				Signature and Date: J. M. Sauer		Month Day Year 07/18/12	
Discrepancies: Mike Huma							
Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:							
Print or Type Name: J. Provansal / D. Jafferey				Signature and Date: J. P. 7/30/12			



WorleyParsons

resources & energy

**ASSOCIATED PLATING COMPANY
SOIL GAS INVESTIGATION REPORT
9636 ANN STREET, SANTA FE SPRINGS, CALIFORNIA 90670**

Appendix 3 Physical Properties Data Report

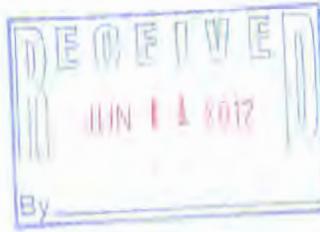


8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

June 7, 2012

Janaka Jayamaha
Worley Parsons
17330 Brookhurst Street
Fountain Valley, CA 92708

Re: PTS File No: 42377
Physical Properties Data
APC; 308038-03532



Dear Mr. Jayamaha:

Please find enclosed report for Physical Properties analyses conducted upon samples received from your APC; 308038-03532 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. The samples are currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please contact Rachel Spitz at (562) 347-2504.

Sincerely,
PTS Laboratories



Michael Mark Brady, P.G.
District Manager

Encl.

PTS Laboratories

Project Name: APC
 Project Number: 308038-03532

PTS File No: 42377
 Client: Worley Parsons

TEST PROGRAM - 20120523

CORE ID	Depth ft.	Core Recovery ft.	Vapor Transport Package					Notes
		Plugs:	Various					
Date Received: 20120523								
SVM-4-4	4	1.00	X					
SVM-7-5	5	1.00	X					
SVM-8-5	5	1.00	X					
SVM-10-5	5	1.00	X					
SVM-11-5	5	1.00	X					
TOTALS:	5 cores	5.00	5					5

Laboratory Test Program Notes

Contaminant identification: _____

Standard TAT for basic analysis is 10 business days.

Vapor Transport Package (Johnson-Ettinger): Input parameters for Johnson-Ettinger Model; Air permeability (native + specific); porosity (total, effective, air-filled, water-filled), volumetric air and water, moisture content, intrinsic permeability/hydraulic conductivity, grain density, dry bulk density, TOC/foc, soil classification USDA/USCS (grain size + Atterberg limits).

PHYSICAL PROPERTIES DATA - VAPOR TRANSPORT PACKAGE

PROJECT NAME: APC
 PROJECT NO: 308038-03532

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	METHODS: API RP40/ASTM D2216		API RP40		API RP40	API RP40		Mod. ASTM D425	API RP40
				MOISTURE CONTENT,		DENSITY		POROSITY (2)			TOTAL PORE FLUID (3) SATURATIONS, % Pv	
				% weight	cm ³ /cm ³	DRY BULK, g/cm ³	GRAIN, g/cm ³	TOTAL, cm ³ /cm ³	AIR FILLED, cm ³ /cm ³	WATER FILLED, cm ³ /cm ³	EFFECTIVE, cm ³ /cm ³	
SVM-4-4	4.35	V	20120604	16.8	0.279	1.66	2.72	0.389	0.110	0.279	0.039	71.7
SVM-7-5	4.30	V	20120604	17.0	0.280	1.65	2.68	0.386	0.107	0.280	0.086	72.3
SVM-8-5	4.30	V	20120604	17.9	0.286	1.60	2.65	0.398	0.112	0.286	0.048	71.7
SVM-10-5	4.30	V	20120604	14.8	0.259	1.75	2.69	0.348	0.089	0.259	0.047	74.3
SVM-11-5	4.35	V	20120604	17.5	0.299	1.71	2.70	0.368	0.069	0.299	0.065	81.1

(1) Sample Orientation: H = horizontal; V = vertical; R = remold

(2) Total Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids, native sample; Effective = drainage porosity

(3) Water = 0.9996 g/cc; Pv = Pore Volume; ND = Not Detected

PTS File No: 42377
 Client: Worley Parsons

PERMEABILITY DATA - VAPOR TRANSPORT PACKAGE

PROJECT NAME: APC
 PROJECT NO: 308038-03532

METHODOLOGY:			API RP40		API RP40 / EPA 9100		
			25 PSI CONFINING PRESSURE		25 PSI CONFINING PRESSURE		
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	EFFECTIVE PERMEABILITY TO AIR (2), millidarcy	SPECIFIC PERMEABILITY TO AIR (3), millidarcy	SPECIFIC PERMEABILITY TO WATER (4), millidarcy	HYDRAULIC CONDUCTIVITY (4), cm/s	INTRINSIC PERMEABILITY TO WATER (4), cm ⁻²
SVM-4-4	4.35	V	0.12	12.0	1.36	1.34E-06	1.34E-11
SVM-7-5	4.30	V	0.06	9.63	1.58	1.56E-06	1.56E-11
SVM-8-5	4.30	V	0.12	16.3	2.12	2.08E-06	2.09E-11
SVM-10-5	4.30	V	0.10	16.8	1.63	1.62E-06	1.60E-11
SVM-11-5	4.35	V	0.21	16.0	3.05	3.04E-06	3.01E-11

(1) Sample Orientation: H = horizontal, V = vertical, R = remold

(2) Native State = As received with pore fluids in place

(3) Specific = without moisture

(4) Permeability to water and conductivity measured at saturated conditions

Air = Nitrogen gas.

SOIL CLASSIFICATION DATA - VAPOR TRANSPORT PACKAGE

PROJECT NAME: APC
 PROJECT NO: 308038-03532

SAMPLE ID.	DEPTH, ft.	METHODS:			ASTM D4318 ATTERBERG LIMITS (1)	ASTM D4318 USCS / PLASTICITY CHART SYMBOL (Fines: <#40 Sieve)	ASTM D2487 USCS CLASSIFICATION, Group Symbol: Name	USDA USDA/SCS (2) SOIL TEXTURE SCHEME
		LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				
SVM-4-4	4.35	26.3	15.4	10.9	CL	CL: Sandy lean clay	Loam	Silt loam
SVM-7-5	4.35	20.4	13.0	7.4	CL	CL: Sandy lean clay	Loam	Loam
SVM-8-5	4.40	27.3	14.5	12.8	CL	CL: Sandy lean clay	Loam	Loam
SVM-10-5	4.30	27.8	12.9	14.9	CL	CL: Sandy lean clay	Loam	Loam
SVM-11-5	4.45	26.6	15.9	10.7	CL	CL: Sandy lean clay	Loam	Silt loam

USCS: Unified Soil Classification System

USDA: US Department of Agriculture

SCS: Soil Conservation Service

(1) Silt assumed as fine fraction for NON-PLASTIC (NP) samples. (2) Sand considered to be >No. 200 sieve for USDA SOIL TEXTURE SCHEME.

PTS File No: 42377
 Client: Worley Parsons

ORGANIC CARBON DATA - TOC (foc)

(METHODOLOGY: WALKLEY-BLACK)

PROJECT NAME: APC
 PROJECT NO: 308038-03532

SAMPLE ID.	DEPTH, ft.	ANALYSIS DATE	ANALYSIS TIME	SAMPLE MATRIX	TOTAL ORGANIC CARBON, mg/kg	FRACTION ORGANIC CARBON, g/g
SVM-4-4	4.05	20120605	1050	SOIL	1600	1.60E-03
SVM-7-5	4.05	20120605	1050	SOIL	6400	6.40E-03
SVM-8-5	4.05	20120605	1050	SOIL	14400	1.44E-02
SVM-10-5	4.05	20120605	1050	SOIL	6100	6.10E-03
SVM-11-5	4.05	20120605	1050	SOIL	4550	4.55E-03
Blank	N/A	20120605	1050	BLANK	ND	ND
SRM D076-542	N/A	20120605	1050	SRM	2660	2.66E-03
				Reporting Limit:	100	1.00E-04

QC DATA

SRM ID/Lot No.	REC (%)	Control Limits	Certified	QC Performance		
			Concentration mg/kg	Acceptance Limits, mg/kg	Lower	Upper
D076-542	97	75-125	2750	2063	3438	

ND = Not Detected

PARTICLE SIZE SUMMARY
(METHODOLOGY: ASTM D422/D4464M)

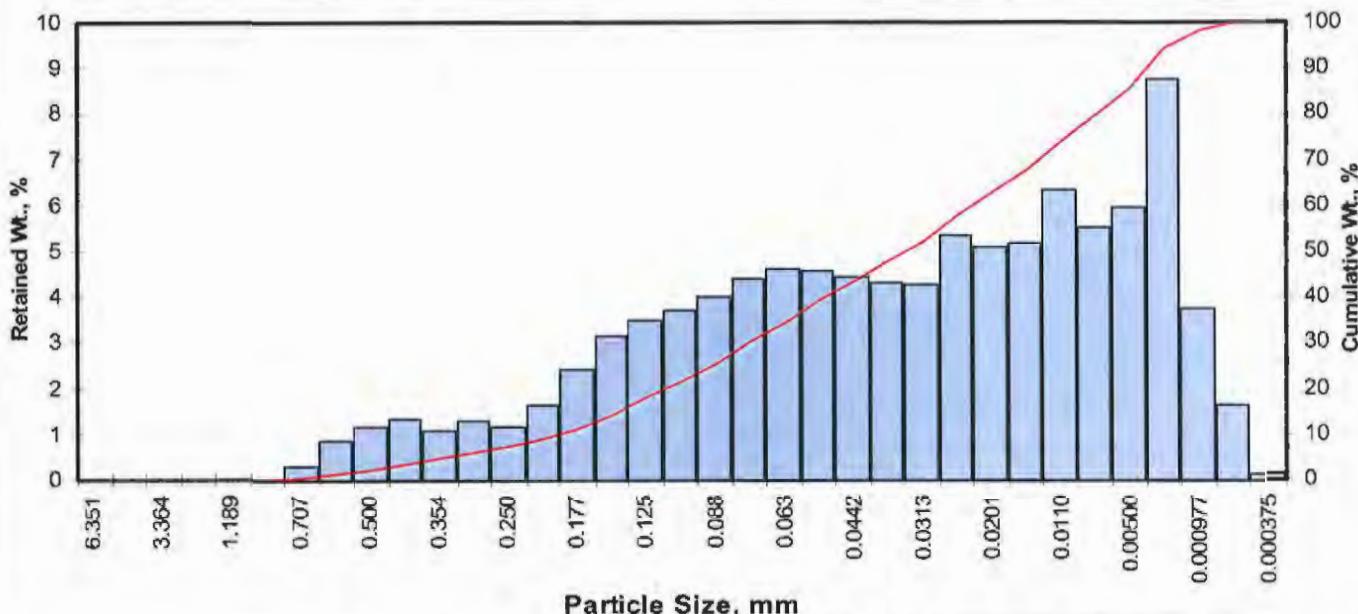
PROJECT NAME: APC
PROJECT NO: 308038-03532

Sample ID	Depth, ft.	Mean Grain Size Description (1)	Median Grain Size mm	Particle Size Distribution, wt. percent							Silt & Clay	
				Gravel	Sand Size			Silt	Clay			
					Coarse	Medium	Fine					
SVM-4-4	4.35	Silt	0.034	0.00	0.00	3.66	26.38	55.64	14.32	69.96		
SVM-7-5	4.35	Fine sand	0.043	0.00	0.00	11.53	27.45	46.49	14.54	61.02		
SVM-8-5	4.35	Silt	0.051	0.00	0.00	6.70	32.06	48.43	12.81	61.24		
SVM-10-5	4.3	Fine sand	0.039	0.00	0.00	13.67	23.03	49.15	14.14	63.30		
SVM-11-5	4.35	Silt	0.032	0.00	0.00	8.44	23.24	52.43	15.89	68.32		

Client: Worley Parsons
 Project: APC
 Project No: 308038-03532

PTS File No: 42377
 Sample ID: SVM-4-4
 Depth, ft: 4.35

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening		Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
Inches	Millimeters					
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.02	0.02	0.02
0.0278	0.707	0.50	25	0.30	0.30	0.32
0.0234	0.595	0.75	30	0.85	0.85	1.17
0.0197	0.500	1.00	35	1.17	1.17	2.34
0.0166	0.420	1.25	40	1.32	1.32	3.66
0.0139	0.354	1.50	45	1.07	1.07	4.73
0.0117	0.297	1.75	50	1.31	1.31	6.04
0.0098	0.250	2.00	60	1.18	1.18	7.22
0.0083	0.210	2.25	70	1.65	1.65	8.87
0.0070	0.177	2.50	80	2.42	2.42	11.29
0.0059	0.149	2.75	100	3.13	3.13	14.42
0.0049	0.125	3.00	120	3.49	3.49	17.91
0.0041	0.105	3.25	140	3.71	3.71	21.62
0.0035	0.088	3.50	170	4.02	4.02	25.64
0.0029	0.074	3.75	200	4.40	4.40	30.04
0.0025	0.063	4.00	230	4.63	4.63	34.67
0.0021	0.053	4.25	270	4.58	4.58	39.25
0.00174	0.0442	4.50	325	4.43	4.43	43.68
0.00146	0.0372	4.75	400	4.31	4.31	47.99
0.00123	0.0313	5.00	450	4.27	4.27	52.26
0.000986	0.0250	5.32	500	5.36	5.36	57.82
0.000790	0.0201	5.64	635	5.10	5.10	62.72
0.000615	0.0156	6.00		5.16	5.16	67.88
0.000435	0.0110	6.50		6.34	6.34	74.22
0.000308	0.00781	7.00		5.53	5.53	79.75
0.000197	0.00500	7.65		5.93	5.93	85.68
0.000077	0.00195	9.00		8.77	8.77	94.45
0.000038	0.000977	10.00		3.77	3.77	98.22
0.000019	0.000488	11.00		1.63	1.63	99.85
0.000015	0.000375	11.38		0.15	0.15	100.00
TOTALS				100.00	100.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size	
		Inches	Millimeters
5	1.55	0.0134	0.341
10	2.37	0.0076	0.194
16	2.86	0.0054	0.137
25	3.46	0.0036	0.091
40	4.29	0.0020	0.051
50	4.87	0.0013	0.034
60	5.47	0.0009	0.023
75	6.57	0.0004	0.011
84	7.46	0.0002	0.006
90	8.31	0.0001	0.003
95	9.15	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	4.87	4.87	4.87
Median, In.	0.0013	0.0013	0.0013
Median, mm	0.034	0.034	0.034
Mean, phi	4.30	5.18	5.06
Mean, in.	0.0020	0.0011	0.0012
Mean, mm	0.051	0.028	0.030
Sorting	2.939	2.300	2.300
Skewness	0.903	0.128	0.127
Kurtosis	0.211	0.651	1.001

Grain Size Description (ASTM-USCS Scale)	Silt (based on Mean from Trask)
---	------------------------------------

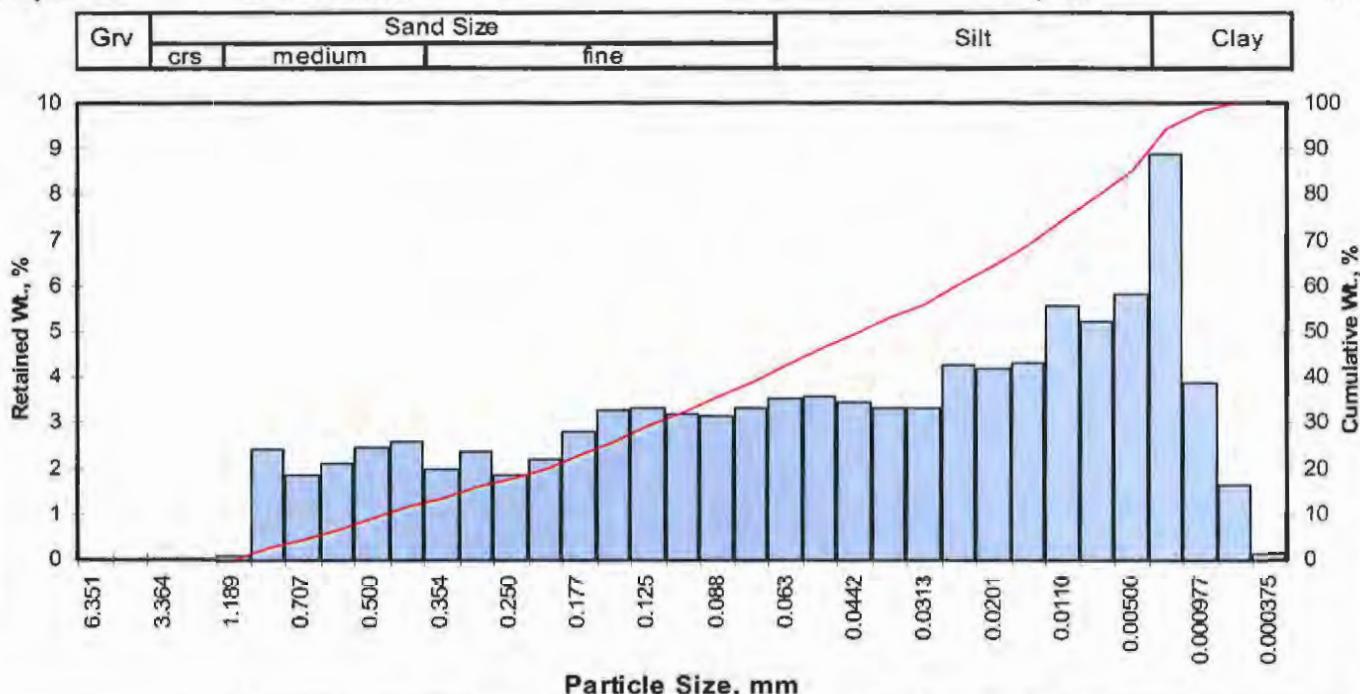
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	3.66
Fine Sand	200	26.38
Silt	>0.005 mm	55.64
Clay	<0.005 mm	14.32
	Total	100

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client: Worley Parsons
 Project: APC
 Project No: 308038-03532

PTS File No: 42377
 Sample ID: SVM-7-5
 Depth, ft: 4.35



Opening		Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent	Cumulative Weight Percent greater than			
Inches	Millimeters						Weight percent	Phi Value	Particle Size	
							5	0.58	0.0264	0.671
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00	10	1.10	0.0183	0.466
0.1873	4.757	-2.25	4	0.00	0.00	0.00	16	1.77	0.0116	0.294
0.1324	3.364	-1.75	8	0.00	0.00	0.00	25	2.67	0.0062	0.157
0.0787	2.000	-1.00	10	0.00	0.00	0.00	40	3.82	0.0028	0.071
0.0468	1.189	-0.25	16	0.07	0.07	0.07	50	4.54	0.0017	0.043
0.0331	0.841	0.25	20	2.42	2.42	2.49	60	5.29	0.0010	0.026
0.0278	0.707	0.50	25	1.87	1.87	4.36	75	6.56	0.0004	0.011
0.0234	0.595	0.75	30	2.13	2.13	6.49	84	7.48	0.0002	0.006
0.0197	0.500	1.00	35	2.46	2.46	8.95	90	8.34	0.0001	0.003
0.0166	0.420	1.25	40	2.58	2.58	11.53	95	9.17	0.0001	0.002
0.0139	0.354	1.50	45	2.00	2.00	13.53				
0.0117	0.297	1.75	50	2.36	2.36	15.89				
0.0098	0.250	2.00	60	1.87	1.87	17.76				
0.0083	0.210	2.25	70	2.19	2.19	19.94				
0.0070	0.177	2.50	80	2.80	2.80	22.74				
0.0059	0.149	2.75	100	3.27	3.27	26.01				
0.0049	0.125	3.00	120	3.30	3.30	29.31				
0.0041	0.105	3.25	140	3.17	3.17	32.48				
0.0035	0.088	3.50	170	3.16	3.16	35.64				
0.0029	0.074	3.75	200	3.34	3.34	38.98				
0.0025	0.063	4.00	230	3.53	3.53	42.51				
0.0021	0.053	4.25	270	3.56	3.56	46.07				
0.00174	0.0442	4.50	325	3.45	3.45	49.52				
0.00146	0.0372	4.75	400	3.32	3.32	52.83				
0.00123	0.0313	5.00	450	3.30	3.30	56.13				
0.000986	0.0250	5.32	500	4.26	4.26	60.39				
0.000790	0.0201	5.64	635	4.17	4.17	64.56				
0.000615	0.0156	6.00		4.30	4.30	68.88				
0.000435	0.0110	6.50		5.56	5.56	74.42				
0.000308	0.00781	7.00		5.21	5.21	79.63				
0.000197	0.00500	7.65		5.84	5.84	85.46				
0.000077	0.00195	9.00		8.90	8.90	94.36				
0.000038	0.000977	10.00		3.86	3.86	98.22				
0.000019	0.000488	11.00		1.63	1.63	99.85				
0.000015	0.000375	11.38		0.15	0.15	100.00				
TOTALS				100.00	100.00	100.00				

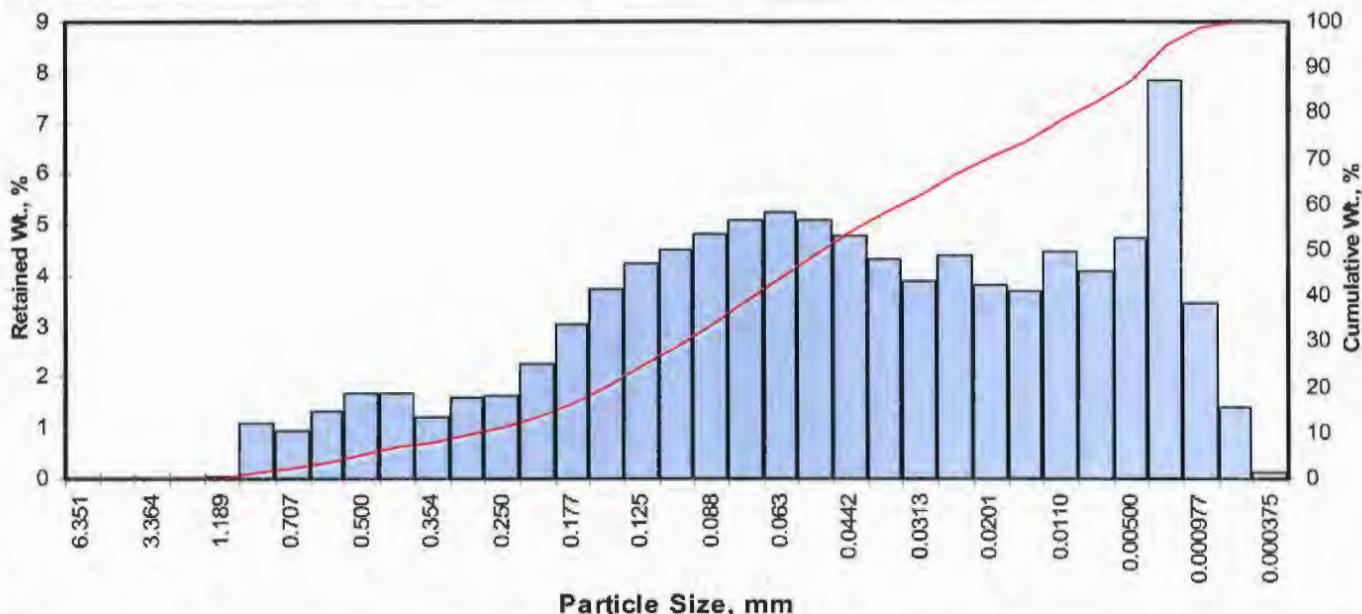
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client: Worley Parsons
 Project: APC
 Project No: 308038-03532

PTS File No: 42377
 Sample ID: SVM-8-5
 Depth, ft: 4.35

Grv	Sand Size			Silt		Clay
	crs	medium	fine			



Opening		Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent	Cumulative Weight Percent greater than			
Inches	Millimeters						Weight percent	Phi Value	Particle Size	
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00	5	0.99	0.0198	0.503
0.1873	4.757	-2.25	4	0.00	0.00	0.00	10	1.82	0.0111	0.282
0.1324	3.364	-1.75	6	0.00	0.00	0.00	16	2.47	0.0071	0.181
0.0787	2.000	-1.00	10	0.00	0.00	0.00	25	3.04	0.0048	0.122
0.0468	1.189	-0.25	18	0.03	0.03	0.03	40	3.81	0.0028	0.071
0.0331	0.841	0.25	20	1.08	1.08	1.11	50	4.30	0.0020	0.051
0.0278	0.707	0.50	25	0.94	0.94	2.05	60	4.87	0.0013	0.034
0.0234	0.595	0.75	30	1.33	1.33	3.38	75	6.12	0.0006	0.014
0.0197	0.500	1.00	35	1.67	1.67	5.05	84	7.21	0.0003	0.007
0.0166	0.420	1.25	40	1.65	1.65	6.70	90	8.13	0.0001	0.004
0.0139	0.354	1.50	45	1.22	1.22	7.92	95	8.99	0.0001	0.002
0.0117	0.297	1.75	50	1.59	1.59	9.51				
0.0098	0.250	2.00	60	1.64	1.64	11.15				
0.0083	0.210	2.25	70	2.25	2.25	13.40				
0.0070	0.177	2.50	80	3.01	3.01	16.41				
0.0059	0.149	2.75	100	3.74	3.74	20.15				
0.0049	0.125	3.00	120	4.21	4.21	24.36				
0.0041	0.105	3.25	140	4.51	4.51	28.87				
0.0035	0.088	3.50	170	4.80	4.80	33.67				
0.0029	0.074	3.75	200	5.09	5.09	38.76				
0.0025	0.063	4.00	230	5.24	5.24	44.00				
0.0021	0.053	4.25	270	5.10	5.10	49.10				
0.00174	0.0442	4.50	325	4.76	4.76	53.86				
0.00146	0.0372	4.75	400	4.31	4.31	58.17				
0.00123	0.0313	5.00	450	3.87	3.87	62.04				
0.000986	0.0250	5.32	500	4.38	4.38	66.42				
0.000790	0.0201	5.64	635	3.81	3.81	70.23				
0.000615	0.0156	6.00		3.67	3.67	73.90				
0.000435	0.0110	6.50		4.45	4.45	78.35				
0.000308	0.00781	7.00		4.09	4.09	82.44				
0.000197	0.00500	7.65		4.75	4.75	87.19				
0.000077	0.00195	9.00		7.84	7.84	95.03				
0.000038	0.000977	10.00		3.47	3.47	98.50				
0.000019	0.000488	11.00		1.38	1.38	99.88				
0.000015	0.000375	11.38		0.12	0.12	100.00				
TOTALS				100.00	100.00	100.00				
									Total	100

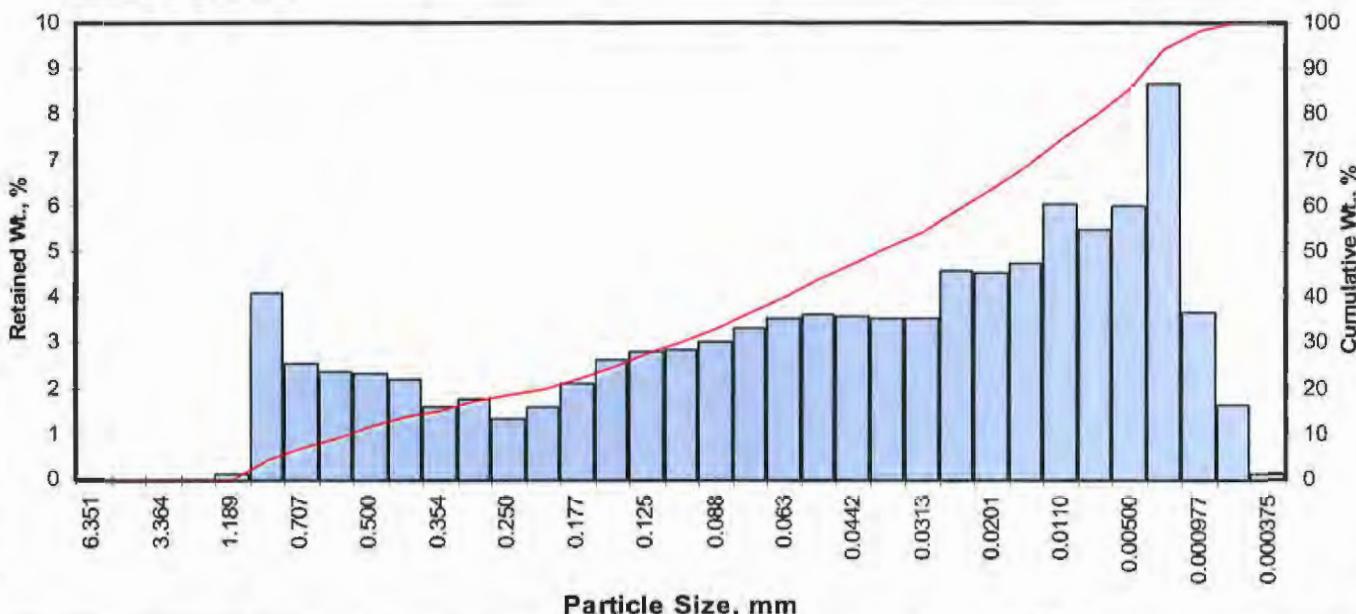
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client: Worley Parsons
 Project: APC
 Project No: 308038-03532

PTS File No: 42377
 Sample ID: SVM-10-5
 Depth, ft: 4.3

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



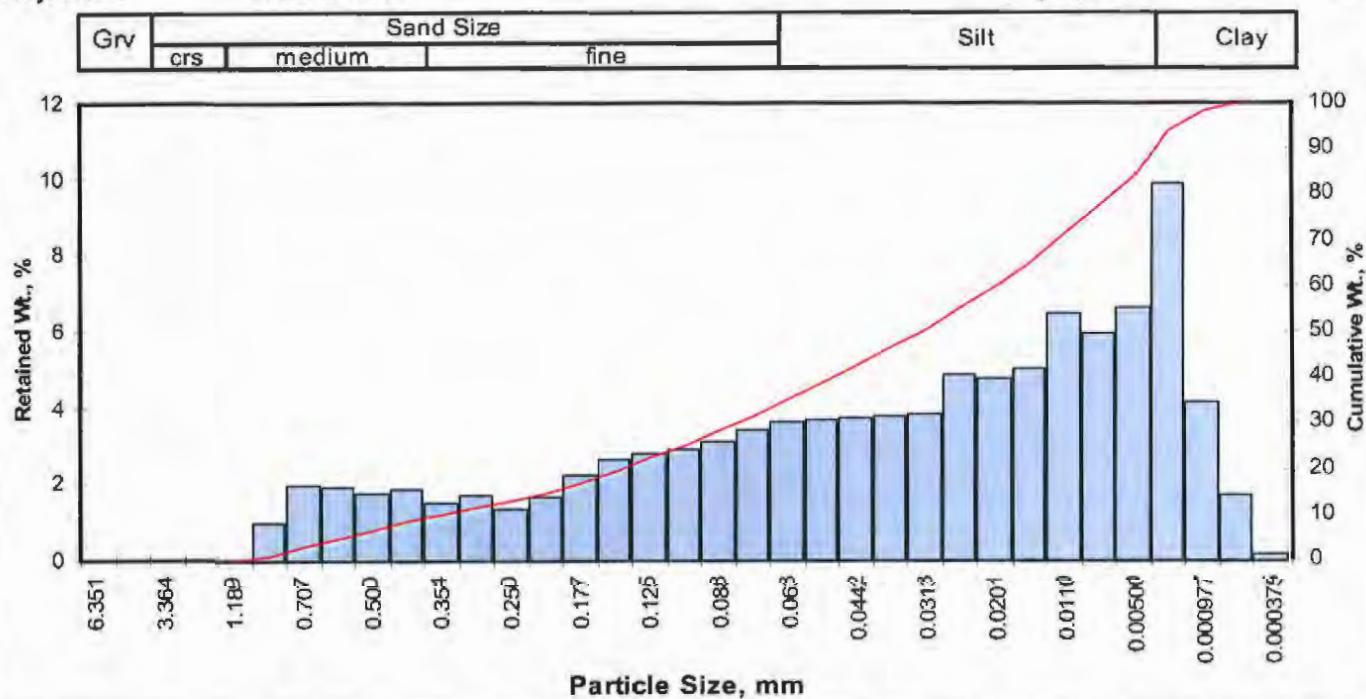
Opening		Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent	Cumulative Weight Percent greater than			
Inches	Millimeters						Weight percent	Phi Value	Particle Size	
							5	0.33	0.0314	0.798
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00	10	0.84	0.0220	0.558
0.1873	4.757	-2.25	4	0.00	0.00	0.00	16	1.60	0.0130	0.329
0.1324	3.384	-1.75	6	0.00	0.00	0.00	25	2.78	0.0057	0.146
0.0787	2.000	-1.00	10	0.00	0.00	0.00	40	3.98	0.0025	0.063
0.0468	1.189	-0.25	16	0.13	0.13	0.13	50	4.68	0.0015	0.039
0.0331	0.841	0.25	20	4.10	4.10	4.23	60	5.39	0.0009	0.024
0.0278	0.707	0.50	25	2.56	2.56	6.79	75	6.55	0.0004	0.011
0.0234	0.595	0.75	30	2.36	2.36	9.15	84	7.44	0.0002	0.006
0.0197	0.500	1.00	35	2.32	2.32	11.47	90	8.29	0.0001	0.003
0.0166	0.420	1.25	40	2.20	2.20	13.67	95	9.13	0.0001	0.002
0.0139	0.354	1.50	45	1.60	1.60	15.27				
0.0117	0.297	1.75	50	1.77	1.77	17.04				
0.0098	0.250	2.00	60	1.34	1.34	18.38				
0.0083	0.210	2.25	70	1.58	1.58	19.96				
0.0070	0.177	2.50	80	2.12	2.12	22.08				
0.0059	0.149	2.75	100	2.62	2.62	24.70				
0.0049	0.125	3.00	120	2.79	2.79	27.49				
0.0041	0.105	3.25	140	2.85	2.85	30.34				
0.0035	0.088	3.50	170	3.03	3.03	33.37				
0.0029	0.074	3.75	200	3.33	3.33	36.70				
0.0025	0.063	4.00	230	3.55	3.55	40.25				
0.0021	0.053	4.25	270	3.60	3.60	43.85				
0.00174	0.0442	4.50	325	3.58	3.58	47.43				
0.00146	0.0372	4.75	400	3.54	3.54	50.98				
0.00123	0.0313	5.00	450	3.54	3.54	54.52				
0.000986	0.0250	5.32	500	4.55	4.55	59.07				
0.000790	0.0201	5.84	635	4.54	4.54	63.61				
0.000615	0.0156	6.00		4.76	4.76	68.37				
0.000435	0.0110	6.50		6.04	6.04	74.41				
0.000308	0.00781	7.00		5.48	5.48	79.89				
0.000197	0.00500	7.65		5.97	5.97	85.86				
0.000077	0.00195	9.00		8.67	8.67	94.53				
0.000038	0.000977	10.00		3.67	3.67	98.20				
0.000019	0.000488	11.00		1.65	1.65	99.85				
0.000015	0.000375	11.38		0.15	0.15	100.00				
TOTALS				100.00	100.00	100.00	Description			
							Retained on Sieve #	Weight Percent		
							Gravel	4	0.00	
							Coarse Sand	10	0.00	
							Medium Sand	40	13.67	
							Fine Sand	200	23.03	
							Silt	>0.005 mm	49.15	
							Clay	<0.005 mm	14.14	
							Total		100	

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client: Worley Parsons
 Project: APC
 Project No: 308038-03532

PTS File No: 42377
 Sample ID: SVM-11-5
 Depth, ft: 4.35



Opening		Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
Inches	Millimeters					
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.96	0.96	0.96
0.0278	0.707	0.50	25	1.96	1.96	2.92
0.0234	0.595	0.75	30	1.89	1.89	4.81
0.0197	0.500	1.00	35	1.76	1.76	6.57
0.0166	0.420	1.25	40	1.87	1.87	8.44
0.0139	0.354	1.50	45	1.48	1.48	9.92
0.0117	0.297	1.75	50	1.70	1.70	11.62
0.0098	0.250	2.00	60	1.34	1.34	12.96
0.0083	0.210	2.25	70	1.66	1.66	14.62
0.0070	0.177	2.50	80	2.20	2.20	16.82
0.0059	0.149	2.75	100	2.63	2.63	19.45
0.0049	0.125	3.00	120	2.79	2.79	22.24
0.0041	0.105	3.25	140	2.90	2.90	25.14
0.0035	0.088	3.50	170	3.12	3.12	28.26
0.0029	0.074	3.75	200	3.42	3.42	31.68
0.0025	0.063	4.00	230	3.64	3.64	35.32
0.0021	0.053	4.25	270	3.69	3.69	39.01
0.00174	0.0442	4.50	325	3.73	3.73	42.74
0.00146	0.0372	4.75	400	3.78	3.78	46.52
0.00123	0.0313	5.00	450	3.83	3.83	50.34
0.000986	0.0250	5.32	500	4.88	4.88	55.22
0.000790	0.0201	5.64	635	4.78	4.78	60.00
0.000615	0.0156	6.00		5.03	5.03	65.03
0.000435	0.0110	6.50		6.48	6.48	71.51
0.000308	0.00781	7.00		5.97	5.97	77.48
0.000197	0.00500	7.65		6.63	6.63	84.11
0.000077	0.00195	9.00		9.90	9.90	94.01
0.000038	0.000977	10.00		4.13	4.13	98.14
0.000019	0.000488	11.00		1.71	1.71	99.85
0.000015	0.000375	11.38		0.15	0.15	100.00
TOTALS				100.00	100.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size	
		Inches	Millimeters
5	0.78	0.0230	0.584
10	1.51	0.0138	0.351
16	2.41	0.0074	0.189
25	3.24	0.0042	0.106
40	4.32	0.0020	0.050
50	4.98	0.0012	0.032
60	5.64	0.0008	0.020
75	6.79	0.0004	0.009
84	7.63	0.0002	0.005
90	8.45	0.0001	0.003
95	9.24	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	4.98	4.98	4.98
Median, in.	0.0012	0.0012	0.0012
Median, mm	0.032	0.032	0.032
Mean, phi	4.12	5.02	5.01
Mean, in.	0.0023	0.0012	0.0012
Mean, mm	0.058	0.031	0.031
Sorting	3.427	2.614	2.589
Skewness	0.974	0.016	0.012
Kurtosis	0.139	0.619	0.976

Grain Size Description	Silt
(ASTM-USCS Scale)	(based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	8.44
Fine Sand	200	23.24
Silt	>0.005 mm	52.43
Clay	<0.005 mm	15.89
Total		100

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

COMPANY <i>Worley Parsons</i> ADDRESS 17330 Brookhurst St #100, Fountain Valley ZIP CODE 92708 CITY PROJECT MANAGER Sanaka Jayamaha PROJECT NAME ARC PROJECT NUMBER 3080318-03532 FAX NUMBER 714-849-9610 SITE LOCATION 9636 Ann St., Santa Fe Springs 90670 SAMPLER SIGNATURE <i>John O.</i>				ANALYSIS REQUEST												PO#			
				NUMBER OF SAMPLES	SOIL PROPERTIES PACKAGE	HYDRAULIC CONDUCTIVITY PACKAGE	PORE FLUID SATURATIONS PACKAGE	TCEQ/TNRCC PROPERTIES PACKAGE	CAPILLARITY PACKAGE	FLUID PROPERTIES PACKAGE	PHOTOLOG: CORE PHOTOGRAPHY	MOISTURE CONTENT, ASTM D2216	POROSITY: TOTAL API RP40	POROSITY: EFFECTIVE, ASTM D425M	SPECIFIC GRAVITY, ASTM DB54		BULK DENSITY (DRY), API RP40 or ASTM D2937	AIR PERMEABILITY, API RP40	HYDRAULIC CONDUCTIVITY, EPA9100, API RP40, D5084
SAMPLE ID NUMBER	DATE	TIME	DEPTH, FT																PTS FILE: 42377
SVM-4-4	5/23	1030	4	1															COMMENTS 73° F
SVM-7-5		0940	5	1															
SVM-8-5		0910	5	1															
SVM-10-5		0830	5	1															
SVM-11-5	↓	0810	5	1															
1. RELINQUISHED BY <i>John O.</i>	2. RECEIVED BY <i>J. McLean</i>			3. RELINQUISHED BY						4. RECEIVED BY									
COMPANY Worley Parsons	COMPANY PTSLABS			COMPANY						COMPANY									
DATE 5/23/12	TIME 1428	DATE 5/23/12	TIME 14:28	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME



WorleyParsons

resources & energy

**ASSOCIATED PLATING COMPANY
SOIL GAS INVESTIGATION REPORT
9636 ANN STREET, SANTA FE SPRINGS, CALIFORNIA 90670**

Appendix 4 Soil Gas Laboratory Analytical Results



A & R Laboratories

Formerly Microbac Southern California

1401 RESEARCH PARK DRIVE, SUITE 100

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951-779-0310

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FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

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FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng

Ken Zheng, President
05/24/2012 15:46:43

Laboratory Job No. (Certificate of Analysis No.)

1205-00176

Project Name / No.

9636 ANN ST., SANTA FE SPRINGS, CA

Dates Sampled (from/to)

05/23/12 To 05/23/12

Dates Received (from/to)

05/23/12 To 05/23/12

Dates Reported (from/to)

05/24/12 To 5/24/2012

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact



A & R Laboratories

Formerly Microbac Southern California

1401 RESEARCH PARK DRIVE, SUITE 100

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 SVM-10 1PV											Date & Time Sampled:	05/23/12 @ 10:00	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
[VOCs by GCMS]													
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	05/23/12	HXE	

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, wholly or in part, for advertising or other purposes without approval from the laboratory.

USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research



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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 SVM-10 1PV											Date & Time Sampled:	05/23/12 @ 10:00	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	0.12	0.05	0.10	µg/L	120	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 SVM-10 1PV											Date & Time Sampled:	05/23/12 @ 10:00	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Toluene	0.055	0.05	0.10	µg/L	55	50	100	µg/m³	J	EPA 8260B	05/23/12	HXE	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Vinyl Chloride	<0.013	0.013	0.050	µg/L	<13	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Surrogates]													
Dibromofluoromethane	102	70-130 %REC											
Toluene-D8	97	70-130 %REC											
Bromofluorobenzene	99	70-130 %REC											

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 SVM-10 3PV											Date & Time Sampled:	05/23/12 @ 10:24	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 SVM-10 3PV											Date & Time Sampled:	05/23/12	@ 10:24
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 SVM-10 3PV											Date & Time Sampled:	05/23/12 @ 10:24	
Sample Matrix: Soil Vapor													
.....continued													
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech									
Sample: 002 SVM-10 3PV											Date & Time Sampled:	05/23/12 @ 10:24										
Sample Matrix: Soil Vapor																						
Purge Volume Sampled: 3																						
.....continued																						
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Toluene	0.12	0.05	0.10	µg/L	120	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Vinyl Chloride	<0.013	0.013	0.050	µg/L	<13	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
[VOC Vapor Sampling Tracer]																						
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
[VOC Surrogates]																						
Dibromofluoromethane	104		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE									
Toluene-D8	96		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE									
Bromofluorobenzene	99		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE									

Sample: 003 SVM-10 7PV											Date & Time Sampled:	05/23/12 @ 10:41
Sample Matrix: Soil Vapor												
Purge Volume Sampled: 7												
[VOCs by GCMS]												
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 SVM-10 7PV										Date & Time Sampled:			
Sample Matrix: Soil Vapor										05/23/12 @ 10:41			
Purge Volume Sampled:	7												
.....continued													
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 SVM-10 7PV											Date & Time Sampled:	05/23/12	@ 10:41
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 7													
.....continued													
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 SVM-10 7PV											Date & Time Sampled:	05/23/12 @ 10:41	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 7													
.....continued													
Toluene	0.12	0.05	0.10	µg/L	120	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Vinyl Chloride	<0.013	0.013	0.050	µg/L	<13	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Surrogates]													
Dibromofluoromethane	102		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE
Toluene-D8	97		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE
Bromofluorobenzene	98		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE
Sample: 004 SVM-11											Date & Time Sampled:	05/23/12 @ 11:18	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
[VOCs by GCMS]													
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 SVM-11											Date & Time Sampled:	05/23/12 @ 11:18	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	0.18	0.05	0.10	µg/L	180	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	24	0.05	0.10	µg/L	24,000	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	2.5	0.05	0.10	µg/L	2,500	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 SVM-11											Date & Time Sampled:	05/23/12 @ 11:18	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Vinyl Chloride	0.51	0.013	0.050	µg/L	510	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Surrogates]													
Dibromofluoromethane	101	70-130 %REC											
Toluene-D8	97	70-130 %REC											
Bromofluorobenzene	99	70-130 %REC											

Sample: 005 SVM-1											Date & Time Sampled:	05/23/12 @ 11:40
Sample Matrix: Soil Vapor												
Purge Volume Sampled: 1												
[VOCs by GCMS]												
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 SVM-1											Date & Time Sampled:	05/23/12 @ 11:40	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 SVM-1											Date & Time Sampled:	05/23/12 @ 11:40	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,1-Dichloroethene	0.17	0.05	0.10	µg/L	170	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
cis-1,2-Dichloroethene	10	0.05	0.10	µg/L	10,000	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
trans-1,2-Dichloroethene	2.5	0.05	0.10	µg/L	2,500	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³		1.0	EPA 8260B	05/23/12 HXE	

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Date Reported 05/24/12
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Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 SVM-1											Date & Time Sampled:	05/23/12 @ 11:40	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichloroethylene	0.68	0.05	0.10	µg/L	680	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Vinyl Chloride	0.088	0.013	0.050	µg/L	88	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Surrogates]													
Dibromofluoromethane	103	70-130 %REC											
Toluene-D8	97	70-130 %REC											
Bromofluorobenzene	97	70-130 %REC											

Sample: 006 SVM-2											Date & Time Sampled:	05/23/12 @ 12:01
Sample Matrix: Soil Vapor												
Purge Volume Sampled: 1												
[VOCs by GCMS]												
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 SVM-2											Date & Time Sampled:	05/23/12 @ 12:01	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1continued												
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 SVM-2											Date & Time Sampled:	05/23/12 @ 12:01	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
cis-1,2-Dichloroethene	0.70	0.05	0.10	µg/L	700	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech	
Sample: 006 SVM-2											Date & Time Sampled:	05/23/12 @ 12:01		
Sample Matrix: Soil Vapor														
Purge Volume Sampled: 1														
.....continued														
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Vinyl Chloride	<0.013	0.013	0.050	µg/L	<13	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
[VOC Vapor Sampling Tracer]														
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
[VOC Surrogates]														
Dibromofluoromethane	101	70-130 %REC												
Toluene-D8	96	70-130 %REC												
Bromofluorobenzene	98	70-130 %REC												
Sample: 007 SVM-3											Date & Time Sampled:	05/23/12 @ 12:22		
Sample Matrix: Soil Vapor														
Purge Volume Sampled: 1														
[VOCs by GCMS]														
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
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Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
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Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 SVM-3											Date & Time Sampled:	05/23/12 @ 12:22	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	0.38	0.05	0.10	µg/L	380	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 SVM-3											Date & Time Sampled:	05/23/12 @ 12:22	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	0.27	0.05	0.10	µg/L	270	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Toluene	0.064	0.05	0.10	µg/L	64	50	100	µg/m³	J	1.0	EPA 8260B	05/23/12	HXE
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech	
Sample: 007 SVM-3											Date & Time Sampled:	05/23/12 @ 12:22		
Sample Matrix: Soil Vapor														
Purge Volume Sampled: 1														
.....continued														
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Trichloroethene	0.20	0.05	0.10	µg/L	200	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Vinyl Chloride	<0.013	0.013	0.050	µg/L	<13	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
[VOC Vapor Sampling Tracer]														
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
[VOC Surrogates]														
Dibromofluoromethane	103	70-130 %REC												
Toluene-D8	98	70-130 %REC												
Bromofluorobenzene	98	70-130 %REC												
Sample: 008 SVM-4											Date & Time Sampled:	05/23/12 @ 12:44		
Sample Matrix: Soil Vapor														
Purge Volume Sampled: 1														
[VOCs by GCMS]														
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE		

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 SVM-4											Date & Time Sampled:	05/23/12 @ 12:44	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	0.22	0.05	0.10	µg/L	220	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 SVM-4											Date & Time Sampled:	05/23/12 @ 12:44	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1continued												
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 SVM-4											Date & Time Sampled:	05/23/12 @ 12:44	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Vinyl Chloride	<0.013	0.013	0.050	µg/L	<13	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
[VOC Surrogates]													
Dibromofluoromethane	104		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE
Toluene-D8	96		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE
Bromofluorobenzene	96		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE
Sample: 009 SVM-5											Date & Time Sampled:	05/23/12 @ 13:06	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
[VOCs by GCMS]													
Acetone	<5.0	5	10	µg/L	<5,000	5,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Bromomethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 009 SVM-5											Date & Time Sampled:	05/23/12 @ 13:06	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Chloromethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	0.094	0.05	0.10	µg/L	94	50	100	µg/m³	J	1.0	EPA 8260B	05/23/12	HXE
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 009 SVM-5											Date & Time Sampled:	05/23/12 @ 13:06	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<1.0	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	120	0.05	0.10	µg/L	120,000	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	
Trichloroethene	9.3	0.05	0.10	µg/L	9,300	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE	

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Invoice No. 67629
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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech									
Sample: 009 SVM-5											Date & Time Sampled:	05/23/12 @ 13:06										
Sample Matrix: Soil Vapor																						
Purge Volume Sampled: 1																						
.....continued																						
1,2,3-Trichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Trichlorotrifluoroethane	<0.20	0.2	0.20	µg/L	<200	200	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
Vinyl Chloride	<0.013	0.013	0.050	µg/L	<13	13	50	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
m,p-Xylenes	<0.10	0.1	0.20	µg/L	<100	100	200	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
[VOC Vapor Sampling Tracer]																						
Isopropanol (IPA)	<10	10	10	µg/L	<10,000	10,000	10,000	µg/m³	1.0	EPA 8260B	05/23/12	HXE										
[VOC Surrogates]																						
Dibromofluoromethane	107		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE									
Toluene-D8	100		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE									
Bromofluorobenzene	97		70-130	%REC						1.0	EPA 8260B	05/23/12	HXE									
Sample: 010 SVM-6											Date & Time Sampled:	05/23/12 @ 13:27										
Sample Matrix: Soil Vapor																						
Purge Volume Sampled: 1																						
[VOCs by GCMS]																						
Acetone	<50.00	50	100	µg/L	<50,000	50,000	100,000	µg/m³	10	EPA 8260B	05/23/12	HXE										
t-Amyl Methyl Ether (TAME)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE										
Benzene	<0.36	0.36	0.50	µg/L	<360	360	500	µg/m³	10	EPA 8260B	05/23/12	HXE										
Bromobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE										
Bromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE										
Bromodichloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE										
Bromoform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE										
Bromomethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE										
t-Butanol (TBA)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE										

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 SVM-6											Date & Time Sampled:	05/23/12 @ 13:27	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
2-Butanone (MEK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloroform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloromethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	

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LOS ANGELES, CA 90040

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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 SVM-6											Date & Time Sampled:	05/23/12 @ 13:27	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
2,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Diisopropyl Ether (DiPE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Ethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2-Hexanone	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<10.00	10	20	µg/L	<10,000	10,000	20,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.32	0.32	0.50	µg/L	<320	320	500	µg/m³	10	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Styrene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	120	0.5	1.0	µg/L	120,000	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Toluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,3-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Trichloroethene	24	0.5	1.0	µg/L	24,000	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,3-Trichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 SVM-6										Date & Time Sampled:			
Sample Matrix: Soil Vapor										05/23/12 @ 13:27			
Purge Volume Sampled: 1													
.....continued													
Trichlorofluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Trichlorotrifluoroethane	<2.00	2	2.0	µg/L	<2,000	2,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Vinyl Chloride	<0.13	0.13	0.50	µg/L	<130	130	500	µg/m³	10	EPA 8260B	05/23/12	HXE	
m,p-Xylenes	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
o-Xylene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<100.00	100	100	µg/L	<100,000	100,000	100,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
[VOC Surrogates]													
Dibromofluoromethane	102		70-130	%REC					10	EPA 8260B	05/23/12	HXE	
Toluene-D8	99		70-130	%REC					10	EPA 8260B	05/23/12	HXE	
Bromofluorobenzene	98		70-130	%REC					10	EPA 8260B	05/23/12	HXE	
Sample: 011 SVM-7										Date & Time Sampled:			
Sample Matrix: Soil Vapor										05/23/12 @ 14:11			
Purge Volume Sampled: 1													
[VOCs by GCMS]													
Acetone	<50.00	50	100	µg/L	<50,000	50,000	100,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
t-Amyl Methyl Ether (TAME)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Benzene	0.56	0.36	0.50	µg/L	560	360	500	µg/m³	10	EPA 8260B	05/23/12	HXE	
Bromobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Bromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Bromoform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Bromomethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	

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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 SVM-7											Date & Time Sampled:	05/23/12 @ 14:11	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
n-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
sec-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
tert-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Carbon Disulfide	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloroform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloromethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	0.59	0.5	1.0	µg/L	590	500	1,000	µg/m³	J	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	05/24/12
Date Received	05/23/12
Invoice No.	67629
Cust #	1567
Permit Number	
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 SVM-7											Date & Time Sampled:	05/23/12 @ 14:11	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,1-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
cis-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
trans-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Diisopropyl Ether (DiPE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Ethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Hexachlorobutadiene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
2-Hexanone	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Isopropylbenzene	0.71	0.5	1.0	µg/L	710	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12 HXE	
4-Isopropyltoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Methylene Chloride	<10.00	10	20	µg/L	<10,000	10,000	20,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
4-Methyl-2-Pentanone (MIBK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Methyl-t-butyl Ether (MtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Naphthalene	<0.32	0.32	0.50	µg/L	<320	320	500	µg/m³		10	EPA 8260B	05/23/12 HXE	
n-Propylbenzene	0.82	0.5	1.0	µg/L	820	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12 HXE	
Styrene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,1,2-Tetrachloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,2,2-Tetrachloroethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Tetrachloroethene	4.6	0.5	1.0	µg/L	4,600	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Toluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2,3-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2,4-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,1-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,2-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Trichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2,3-Trichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Trichlorofluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech	
Sample: 011 SVM-7											Date & Time Sampled:	05/23/12	@ 14:11	
Sample Matrix: Soil Vapor														
Purge Volume Sampled: 1														
.....continued														
Trichlorotrifluoroethane	<2.00	2	2.0	µg/L	<2,000	2,000	2,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
Vinyl Chloride	290	0.13	0.50	µg/L	290,000	130	500	µg/m³		10	EPA 8260B	05/23/12	HXE	
m,p-Xylenes	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
o-Xylene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
[VOC Vapor Sampling Tracer]														
Isopropanol (IPA)	<100.00	100	100	µg/L	<100,000	100,000	100,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
[VOC Surrogates]														
Dibromofluoromethane	104		70-130	%REC							10	EPA 8260B	05/23/12	HXE
Toluene-D8	105		70-130	%REC							10	EPA 8260B	05/23/12	HXE
Bromofluorobenzene	106		70-130	%REC							10	EPA 8260B	05/23/12	HXE
Sample: 012 SVM-7 DUP														
Sample Matrix: Soil Vapor											Date & Time Sampled:	05/23/12	@ 14:11	
Purge Volume Sampled: 1														
[VOCs by GCMS]														
Acetone	<50.00	50	100	µg/L	<50,000	50,000	100,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
t-Amyl Methyl Ether (TAME)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
Benzene	0.64	0.36	0.50	µg/L	640	360	500	µg/m³		10	EPA 8260B	05/23/12	HXE	
Bromobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
Bromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
Bromodichloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
Bromoform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
Bromomethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
t-Butanol (TBA)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
2-Butanone (MEK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12	HXE	
n-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 012 SVM-7 DUP												Date & Time Sampled:	05/23/12 @ 14:11
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
sec-Butylbenzene	0.50	0.5	1.0	µg/L	500	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12	HXE
tert-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Carbon Disulfide	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Carbon Tetrachloride	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m³		10	EPA 8260B	05/23/12	HXE
Chlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Chloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Chloroform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Chloromethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12	HXE
2-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
4-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Dibromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,2-Dibromoethane (EDB)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,2-Dibromo-3-Chloropropane	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Dibromomethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,2-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,3-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,4-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Dichlorodifluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,1-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,2-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,1-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
cis-1,2-Dichloroethene	0.85	0.5	1.0	µg/L	850	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12	HXE
trans-1,2-Dichloroethene	0.55	0.5	1.0	µg/L	550	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12	HXE
1,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,3-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
2,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,1-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE

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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 012 SVM-7 DUP												Date & Time Sampled:	05/23/12 @ 14:11
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
cis-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
trans-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Diisopropyl Ether (DiPE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Ethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Ethyl-t-Butyl Ether (EtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Hexachlorobutadiene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
2-Hexanone	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Isopropylbenzene	0.74	0.5	1.0	µg/L	740	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12	HXE
4-Isopropyltoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Methylene Chloride	<10.00	10	20	µg/L	<10,000	10,000	20,000	µg/m³		10	EPA 8260B	05/23/12	HXE
4-Methyl-2-Pentanone (MIBK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Methyl-t-butyl Ether (MtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Naphthalene	<0.32	0.32	0.50	µg/L	<320	320	500	µg/m³		10	EPA 8260B	05/23/12	HXE
n-Propylbenzene	0.80	0.5	1.0	µg/L	800	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12	HXE
Styrene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,1,1,2-Tetrachloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,1,2,2-Tetrachloroethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Tetrachloroethene	4.4	0.5	1.0	µg/L	4,400	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Toluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,2,3-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,2,4-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,1,1-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,1,2-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Trichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
1,2,3-Trichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Trichlorofluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
Trichlorotrifluoroethane	<2.00	2	2.0	µg/L	<2,000	2,000	2,000	µg/m³		10	EPA 8260B	05/23/12	HXE

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech	
Sample: 012 SVM-7 DUP											Date & Time Sampled:	05/23/12 @ 14:11		
Sample Matrix: Soil Vapor														
Purge Volume Sampled: 1														
.....continued														
1,2,4-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
1,3,5-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
Vinyl Chloride	320	0.13	0.50	µg/L	320,000	130	500	µg/m³		10	EPA 8260B	05/23/12 HXE		
m,p-Xylenes	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
o-Xylene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
[VOC Vapor Sampling Tracer]														
Isopropanol (IPA)	<100.00	100	100	µg/L	<100,000	100,000	100,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
[VOC Surrogates]														
Dibromofluoromethane	106	70-130 %REC												
Toluene-D8	104	70-130 %REC												
Bromofluorobenzene	101	70-130 %REC												
Sample: 013 SVM-8											Date & Time Sampled:	05/23/12 @ 14:56		
Sample Matrix: Soil Vapor														
Purge Volume Sampled: 1														
[VOCs by GCMS]														
Acetone	<50.00	50	100	µg/L	<50,000	50,000	100,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
t-Amyl Methyl Ether (TAME)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
Benzene	<0.36	0.36	0.50	µg/L	<360	360	500	µg/m³		10	EPA 8260B	05/23/12 HXE		
Bromobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
Bromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
Bromodichloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
Bromoform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
Bromomethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
t-Butanol (TBA)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
2-Butanone (MEK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
n-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		
sec-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE		

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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 SVM-8											Date & Time Sampled:	05/23/12 @ 14:56	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
tert-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Carbon Disulfide	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Carbon Tetrachloride	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m³		10	EPA 8260B	05/23/12 HXE	
Chlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Chloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Chloroform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Chloromethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
2-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
4-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Dibromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2-Dibromoethane (EDB)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2-Dibromo-3-Chloropropane	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Dibromomethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,3-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,4-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Dichlorodifluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
cis-1,2-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
trans-1,2-Dichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,3-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
2,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
cis-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	

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LOS ANGELES, CA 90040

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Invoice No. 67629
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Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 SVM-8											Date & Time Sampled:	05/23/12 @ 14:56	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
trans-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Diisopropyl Ether (DiPE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Ethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Hexachlorobutadiene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
2-Hexanone	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Isopropylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
4-Isopropyltoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Methylene Chloride	<10.00	10	20	µg/L	<10,000	10,000	20,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
4-Methyl-2-Pentanone (MIBK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Methyl-t-butyl Ether (MtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Naphthalene	<0.32	0.32	0.50	µg/L	<320	320	500	µg/m³		10	EPA 8260B	05/23/12 HXE	
n-Propylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Styrene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,1,2-Tetrachloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,2,2-Tetrachloroethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Tetrachloroethene	0.56	0.5	1.0	µg/L	560	500	1,000	µg/m³	J	10	EPA 8260B	05/23/12 HXE	
Toluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2,3-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2,4-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,1-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,1,2-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Trichloroethene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2,3-Trichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Trichlorofluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Trichlorotrifluoroethane	<2.00	2	2.0	µg/L	<2,000	2,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
1,2,4-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	

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Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 SVM-8											Date & Time Sampled:	05/23/12 @ 14:56	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
1,3,5-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Vinyl Chloride	12	0.13	0.50	µg/L	12,000	130	500	µg/m³		10	EPA 8260B	05/23/12 HXE	
m,p-Xylenes	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
o-Xylene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<100.00	100	100	µg/L	<100,000	100,000	100,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
[VOC Surrogates]													
Dibromofluoromethane	103		70-130	%REC						10	EPA 8260B	05/23/12 HXE	
Toluene-D8	98		70-130	%REC						10	EPA 8260B	05/23/12 HXE	
Bromofluorobenzene	98		70-130	%REC						10	EPA 8260B	05/23/12 HXE	
Sample: 014 SVM-9											Date & Time Sampled:	05/23/12 @ 15:37	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
[VOCs by GCMS]													
Acetone	<50.00	50	100	µg/L	<50,000	50,000	100,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
t-Amyl Methyl Ether (TAME)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Benzene	<0.36	0.36	0.50	µg/L	<360	360	500	µg/m³		10	EPA 8260B	05/23/12 HXE	
Bromobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Bromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Bromodichloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Bromoform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
Bromomethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
t-Butanol (TBA)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
2-Butanone (MEK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
n-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
sec-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	
tert-Butylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12 HXE	

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Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 SVM-9											Date & Time Sampled:	05/23/12 @ 15:37	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Carbon Disulfide	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Carbon Tetrachloride	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloroform	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Chloromethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
4-Chlorotoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dibromochloromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dibromoethane (EDB)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dibromo-3-Chloropropane	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dibromomethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,4-Dichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Dichlorodifluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethane	12	0.5	1.0	µg/L	12,000	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloroethene	9.9	0.5	1.0	µg/L	9,900	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
cis-1,2-Dichloroethene	510	0.5	1.0	µg/L	510,000	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
trans-1,2-Dichloroethene	210	0.5	1.0	µg/L	210,000	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2,2-Dichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
cis-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
trans-1,3-Dichloropropene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 SVM-9											Date & Time Sampled:	05/23/12 @ 15:37	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Diisopropyl Ether (DiPE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Ethylbenzene	0.62	0.5	1.0	µg/L	620	500	1,000	µg/m³	J	EPA 8260B	05/23/12	HXE	
Ethyl-t-Butyl Ether (EtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Hexachlorobutadiene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
2-Hexanone	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Isopropylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
4-Isopropyltoluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Methylene Chloride	<10.00	10	20	µg/L	<10,000	10,000	20,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
4-Methyl-2-Pentanone (MIBK)	<5.00	5	10	µg/L	<5,000	5,000	10,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Methyl-t-butyl Ether (MtBE)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Naphthalene	<0.32	0.32	0.50	µg/L	<320	320	500	µg/m³	10	EPA 8260B	05/23/12	HXE	
n-Propylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Styrene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,1,2-Tetrachloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,2,2-Tetrachloroethane	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Tetrachloroethene	48	0.5	1.0	µg/L	48,000	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Toluene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,3-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,4-Trichlorobenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,1-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,1,2-Trichloroethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Trichloroethene	16	0.5	1.0	µg/L	16,000	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,3-Trichloropropane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Trichlorofluoromethane	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
Trichlorotrifluoroethane	<2.00	2	2.0	µg/L	<2,000	2,000	2,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,2,4-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	
1,3,5-Trimethylbenzene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³	10	EPA 8260B	05/23/12	HXE	

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CERTIFICATE OF ANALYSIS

1205-00176

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 05/24/12
Date Received 05/23/12
Invoice No. 67629
Cust # 1567
Permit Number
Customer P.O.

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 SVM-9													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 1													
.....continued													
Vinyl Chloride	1400	0.13	0.50	µg/L	1,400,000	130	500	µg/m³		10	EPA 8260B	05/23/12	HXE
m,p-Xylenes	<1.00	1	2.0	µg/L	<1,000	1,000	2,000	µg/m³		10	EPA 8260B	05/23/12	HXE
o-Xylene	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m³		10	EPA 8260B	05/23/12	HXE
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<100.00	100	100	µg/L	<100,000	100,000	100,000	µg/m³		10	EPA 8260B	05/23/12	HXE
[VOC Surrogates]													
Dibromofluoromethane	104		70-130	%REC						10	EPA 8260B	05/23/12	HXE
Toluene-D8	100		70-130	%REC						10	EPA 8260B	05/23/12	HXE
Bromofluorobenzene	98		70-130	%REC						10	EPA 8260B	05/23/12	HXE

Respectfully Submitted:

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL
 B1= BOD blank is over specifications . The reported result may be biased high.
 D = Surrogate recoveries are not calculated due to sample dilution
 E = Estimated value
 H = Analyte was prepared and/or analyzed outside of the analytical method holding time
 I = Matrix Interference
 J = Analyte concentration detected between RL and MDL

ABBREVIATIONS

DF = Dilution Factor
 RL = Reporting Limit
 MDL = Method Detection Limit
 Qual = Qualifier
 Tech = Technician

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Marilu Escher, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at arlabs@arlaboratories.com.



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QUALITY CONTROL DATA REPORT

INTERPHASE

LOS ANGELES, CA 90040

1205-00176

Date Reported	05/24/2012
Date Received	05/23/2012
Date Sampled	05/23/2012
Invoice No.	67629
Customer #	1567
Customer P.O.	

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Method # **EPA 8260B**

QC Reference # 34894 Date Analyzed: 5/23/2012

Technician: HXE

Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014

Results

LCS %REC	BLKSRR%REC
----------	------------

1,1-Dichloroethene	97
Benzene	96
Bromofluorobenzene	97
Chlorobenzene	104
Dibromofluoromethan	100
Toluene	98
Toluene-D8	96
Trichloroethene	100

Control Ranges

LCS %REC	BLKSRR%REC
----------	------------

70 - 130	
70 - 130	70 - 130
70 - 130	70 - 130
70 - 130	70 - 130
70 - 130	70 - 130
70 - 130	70 - 130



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QUALITY CONTROL DATA REPORT

INTERPHASE

1205-00176

Date Reported

05/24/2012

Date Received

05/23/2012

Date Sampled

05/23/2012

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
34894	Acetone	<5.0		µg/L	5.0		Isopropylbenzene	<0.050		µg/L	0.050
	t-Amyl Methyl Ether (TAME)	<0.050		µg/L	0.050		4-Isopropyltoluene	<0.050		µg/L	0.050
	Benzene	<0.036		µg/L	0.036		Methylene Chloride	<1.0		µg/L	1.0
	Bromobenzene	<0.050		µg/L	0.050		4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	0.50
	Bromochloromethane	<0.050		µg/L	0.050		Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	0.050
	Bromodichloromethane	<0.050		µg/L	0.050		Naphthalene	<0.032		µg/L	0.032
	Bromoform	<0.050		µg/L	0.050		n-Propylbenzene	<0.050		µg/L	0.050
	Bromomethane	<0.10		µg/L	0.10		Styrene	<0.050		µg/L	0.050
	t-Butanol (TBA)	<0.50		µg/L	0.50		1,1,1,2-Tetrachloroethane	<0.050		µg/L	0.050
	2-Butanone (MEK)	<0.50		µg/L	0.50		1,1,2,2-Tetrachloroethane	<0.10		µg/L	0.10
	n-Butylbenzene	<0.050		µg/L	0.050		Tetrachloroethene	<0.050		µg/L	0.050
	sec-Butylbenzene	<0.050		µg/L	0.050		Toluene	<0.050		µg/L	0.050
	tert-Butylbenzene	<0.050		µg/L	0.050		1,2,3-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Disulfide	<0.50		µg/L	0.50		1,2,4-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Tetrachloride	<0.025		µg/L	0.025		1,1,1-Trichloroethane	<0.050		µg/L	0.050
	Chlorobenzene	<0.050		µg/L	0.050		1,1,2-Trichloroethane	<0.050		µg/L	0.050
	Chloroethane	<0.050		µg/L	0.050		Trichloroethene	<0.050		µg/L	0.050
	Chloroform	<0.050		µg/L	0.050		1,2,3-Trichloropropane	<0.050		µg/L	0.050
	Chloromethane	<0.10		µg/L	0.10		Trichlorofluoromethane	<0.050		µg/L	0.050
	2-Chlorotoluene	<0.050		µg/L	0.050		Trichlorotrifluoroethane	<0.20		µg/L	0.20
	4-Chlorotoluene	<0.050		µg/L	0.050		1,2,4-Trimethylbenzene	<0.050		µg/L	0.050
	Dibromochloromethane	<0.050		µg/L	0.050		1,3,5-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromoethane (EDB)	<0.050		µg/L	0.050		Vinyl Chloride	<0.013		µg/L	0.013
	1,2-Dibromo-3-Chloropropane	<0.50		µg/L	0.50		m,p-Xylenes	<0.10		µg/L	0.10
	Dibromomethane	<0.050		µg/L	0.050		o-Xylene	<0.050		µg/L	0.050
	1,2-Dichlorobenzene	<0.050		µg/L	0.050		Isopropanol (IPA)	<10		µg/L	10
	1,3-Dichlorobenzene	<0.050		µg/L	0.050						
	1,4-Dichlorobenzene	<0.050		µg/L	0.050						
	Dichlorodifluoromethane	<0.050		µg/L	0.050						
	1,1-Dichloroethane	<0.050		µg/L	0.050						
	1,2-Dichloroethane	<0.050		µg/L	0.050						
	1,1-Dichloroethene	<0.050		µg/L	0.050						
	cis-1,2-Dichloroethene	<0.050		µg/L	0.050						
	trans-1,2-Dichloroethene	<0.050		µg/L	0.050						
	1,2-Dichloropropane	<0.050		µg/L	0.050						
	1,3-Dichloropropane	<0.050		µg/L	0.050						
	2,2-Dichloropropane	<0.050		µg/L	0.050						
	1,1-Dichloropropene	<0.050		µg/L	0.050						
	cis-1,3-Dichloropropene	<0.050		µg/L	0.050						
	trans-1,3-Dichloropropene	<0.050		µg/L	0.050						
	Diisopropyl Ether (DIPE)	<0.050		µg/L	0.050						
	Ethylbenzene	<0.050		µg/L	0.050						
	Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	0.050						
	Hexachlorobutadiene	<0.050		µg/L	0.050						
	2-Hexanone	<0.50		µg/L	0.50						



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QUALITY CONTROL DATA REPORT

INTERPHASE

1205-00176

Date Reported

05/24/2012

Date Received

05/23/2012

Date Sampled

05/23/2012

Project: 9636 ANN ST., SANTA FE SPRINGS, CA

Respectfully Submitted:

Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Marilu Escher, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at arlab@arlaboratories.com.

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1205 - 176

Page 1 of 1

Project No/Name: APC		Project Site: 9636 Ann St. Santa Fe Springs, CA				
Project Manager: Janaka Jayamaha	Phone: 714-849-9605	Fax: 714-849-9610				
Customer Name: (Report and Billing) Worley Parsons		Street Address: (Report and Billing) 17330 Brookhurst St 9636 Ann St Ste 100				
Email: andrew.cherene@worleyparsons.com janaka.jayamaha@worleyparsons.com		City, State Zip Fountain Valley, CA 92707				
Lab #	Sample ID (As it should appear on report)	Grab/ Comp	Date sampled	Time sampled	Sample matrix	Container # & Type
1	SVM-10 1PV	grab	5/23/12	10:00	soft vapor	250cc glass bulb
2	SVM-10 3PV			10:24		
3	SVM-10 7PV			10:41		
4	SVM-11			11:18		
5	SVM-1			11:40		
6	SVM-2			12:01		
7	SVM-3			12:22		
8	SVM-4			12:44		
9	SVM-5			13:06		
10	SVM-6			13:27		

1) Relinquished by: (Sampler's Signature) 	Date: 5/23/12	Time: 16:30	3) Relinquished by:	Date:	Time:	5) Relinquished by:	Date:	Time:	Disposal									
2) Received by: 	Date: 5/23	Time: 16:30	4) Received by:	Date:	Time:	6) Received for Laboratory by:	Date:	Time:	<input type="radio"/> Return <input type="radio"/> Lab Disposal									
<p>This section is to be completed by laboratory personnel:</p> <table border="1"> <tr> <td>Samples Chilled <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> From Field</td> <td>Custody Seals <input type="radio"/> Yes <input type="radio"/> No</td> <td>Samples Intact <input type="radio"/> Yes <input type="radio"/> No</td> <td>Temp C _____</td> <td>Delivery <input type="radio"/> Courier <input type="radio"/> Walk In <input type="radio"/> UPS/Fed Ex</td> <td colspan="4"> Report Delivery Formats <input type="checkbox"/> Paper <input type="checkbox"/> EMAIL <input type="checkbox"/> XLS <input type="checkbox"/> EDD, Type _____ <input type="checkbox"/> EDF, EPA Site ID _____ </td> </tr> </table>									Samples Chilled <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> From Field	Custody Seals <input type="radio"/> Yes <input type="radio"/> No	Samples Intact <input type="radio"/> Yes <input type="radio"/> No	Temp C _____	Delivery <input type="radio"/> Courier <input type="radio"/> Walk In <input type="radio"/> UPS/Fed Ex	Report Delivery Formats <input type="checkbox"/> Paper <input type="checkbox"/> EMAIL <input type="checkbox"/> XLS <input type="checkbox"/> EDD, Type _____ <input type="checkbox"/> EDF, EPA Site ID _____				Unless other arrangements are made samples will be disposed of 60 days after receipt.
Samples Chilled <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> From Field	Custody Seals <input type="radio"/> Yes <input type="radio"/> No	Samples Intact <input type="radio"/> Yes <input type="radio"/> No	Temp C _____	Delivery <input type="radio"/> Courier <input type="radio"/> Walk In <input type="radio"/> UPS/Fed Ex	Report Delivery Formats <input type="checkbox"/> Paper <input type="checkbox"/> EMAIL <input type="checkbox"/> XLS <input type="checkbox"/> EDD, Type _____ <input type="checkbox"/> EDF, EPA Site ID _____													

Laboratory Notes:

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS · MOBILE LABORATORIES · COSMETICS

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

White Copy - Original (Accompanies Samples)

Yellow Copy - A & R Files

Pink Copy - Client Copy

ARL

A & R Laboratories

1401 Research Park Drive, Suite 100

Riverside, CA 92507

T: 951.779.0310 • 800.798.9336 F: 951.779.0344

office@arlaboratories.com

Chain of Custody Record

A & R Work Order #:

1205-00176

Page 2 of 2

Project No/Name: APC		Project Site: 9636 Ann St. Santa Fe Springs, CA			Analyses Requested (circle appropriate)												
Project Manager:		Phone:	Fax:		Preserved	Micro: Plate Crt, Coliform, E-Coli	Chem: BOD, TSS, VSS, TDS, pH, EC	Chem: Cyanide, Ammonia, TKN, Oil & Grease	IC: Br, SO4, PO4, NO3, NO2, Cl	Metals: Title 22(CAN) or RCRA	LUFT Gas or 8015 GRO (C4-C12)	LUFT Diesel or 8015 DRC &/or Oil	VOCs by GCMS: 6260B or 624	BTEX, OXYs by GCMS: 8260B or 624	SVOCs: 8270C or 625	Pest. &/or PCBs: 608 or 8081/8082	Turn Around
Customer Name: (Report and Billing)		Street Address: (Report and Billing)												<input type="radio"/> 24hr RUSH*			
Email:		City, State Zip												<input type="radio"/> 48hr RUSH*			
Lab # (Lab use only)	Sample ID (As it should appear on report)	Grab/ Comp	Date sampled	Time sampled	Sample matrix	Container # & Type									<input type="radio"/> Normal		
11	SVM-7	grab	5/23/12	14:11	soil vapor	250cc glass bulb									<input type="radio"/> Other _____		
12	SVM-7 DUP			14:11													
13	SVM-8			14:56													
14	SVM-9			15:37													
*PRIOR approval, additional fee, work received after 4 pm will be processed next work day.																	
Special Instructions <i>low flow low flow</i>																	
Disposal <input type="radio"/> Return <input type="radio"/> Lab Disposal																	
Unless other arrangements are made samples will be disposed of 60 days after receipt.																	
This section is to be completed by laboratory personnel: 1) Relinquished by: (Sampler's Signature)  Date: 5/23/12 Time: 16:30 3) Relinquished by: _____ Date: _____ Time: _____ 5) Relinquished by: _____ Date: _____ Time: _____ 2) Received by:  Date: 5/23 Time: 16:30 4) Received by: _____ Date: _____ Time: _____ 6) Received for Laboratory by: _____ Date: _____ Time: _____																	
Report Delivery Formats <input type="checkbox"/> Paper <input type="checkbox"/> EMAIL <input type="checkbox"/> XLS <input type="checkbox"/> EDD, Type _____ <input type="checkbox"/> EDF, EPA Site ID _____																	
Samples Chilled <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> From Field Custody Seals <input type="radio"/> Yes <input type="radio"/> No Samples Intact <input type="radio"/> Yes <input type="radio"/> No Temp C Delivery <input type="radio"/> Courier <input type="radio"/> Walk In <input type="radio"/> UPS/Fed Ex																	

Laboratory Notes:

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS · MOBILE LABORATORIES · COSMETICS

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.



WorleyParsons

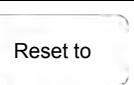
resources & energy

**ASSOCIATED PLATING COMPANY
SOIL GAS INVESTIGATION REPORT
9636 ANN STREET, SANTA FE SPRINGS, CALIFORNIA 90670**

Appendix 5 DTSC Johnson and Ettinger Model Inputs and Outputs

DATA ENTRY SHEET

SG-SCREEN
PA Version 2.0; 04/



Soil Gas Concentration Data	
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)
	OR
ENTER Soil gas conc., C_a (ppmv)	ENTER Chemical
75014	3.10E+03
Vinyl chloride (chloroethene)	

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_s (°C)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	152	24	SII	

MORE
↓

ENTER Vadose zone SCS soil type Lookup Soil	ENTER Vadose zone soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.76	0.398	0.227	5

MORE
↓

ENTER Averaging time for carcinogens, AT_c (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm ² /s)	Diffusivity in water, D_w (cm ² /s)	Henry's law constant at reference temperature, H (atm-m ³ /mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_c (°K)	Unit risk factor, URF	Reference conc., RfC (μg/m ³) ⁻¹	Molecular weight, MW (mg/m ³)	Reference (g/mol)
1.06E-01	1.23E-05	2.69E-02	25	5,250	259.25	432.00	7.8E-05	1.0E-01	62.50	

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation,	Vadose zone soil air-filled porosity,	Vadose zone effective total fluid saturation,	Vadose zone soil intrinsic permeability,	Vadose zone soil relative air permeability,	Vadose zone soil effective vapor permeability,	Floor-wall seam perimeter,	Soil gas conc.	Bldg. ventilation rate,
L _T (cm)	θ_a^V (cm ³ /cm ³)	S _{te} (cm ³ /cm ³)	k _i (cm ²)	k _{ra} (cm ²)	k _v (cm ²)	X _{crack} (cm)	C _{building} (μg/m ³)	Q _{building} (cm ³ /s)
137	0.171	0.486	2.89E-09	0.621	1.79E-09	4,000	3.10E+03	3.39E+04

Area of enclosed space below grade,	Crack-to-total area ratio,	Crack depth below grade,	Enthalpy of vaporization at ave. soil temperature,	Henry's law constant at ave. soil temperature,	Henry's law constant at ave. soil temperature,	Vapor viscosity at ave. soil temperature,	Vadose zone effective diffusion coefficient,	Diffusion path length,
A _B (cm ²)	η	Z _{crack} (cm)	ΔH _{v,TS} (cal/mol)	H _{TS} (atm·m ⁻³ /mol)	H' _{TS} (unitless)	μ _{TS} (g/cm·s)	D ^{eff} _v (cm ² /s)	L _d (cm)
1.00E+06	5.00E-03	15	4,840	2.62E-02	1.07E+00	1.80E-04	1.87E-03	137

Convection path length,	Source vapor conc.,	Crack radius,	Average vapor flow rate into bldg.,	Crack effective diffusion coefficient,	Area of crack,	Exponent of equivalent foundation Peclet number,	Infinite source indoor attenuation coefficient,	Infinite source bldg. conc.,
L _p (cm)	C _{source} (μg/m ³)	r _{crack} (cm)	Q _{soil} (cm ³ /s)	D ^{crack} (cm ² /s)	A _{crack} (cm ²)	exp(Pe ^f)	α	C _{building} (μg/m ³)
15	3.10E+03	1.25	8.33E+01	1.87E-03	5.00E+03	5.42E+38	3.46E-04	1.07E+00

Unit risk factor, URF (μg/m ³) ⁻¹	Reference conc., RFC (mg/m ³)
7.8E-05	1.0E-01

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

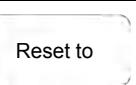
Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
2.0E-05	7.3E-03

MESSAGE SUMMARY BELOW:

END

DATA ENTRY SHEET

SG-SCREEN
PA Version 2.0; 04/



ENTER

ENTER

ENTER

DTSC

Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

Chemical
CAS No.
(numbers only,
no dashes)

Soil
gas
conc.,
 C_a
($\mu\text{g}/\text{m}^3$)

OR

Soil
gas
conc.,
 C_a
(ppmv)

Chemical

127184

5.70E+04

Tetrachloroethylene

MORE

Depth
below grade
to bottom
of enclosed
space floor,
 L_F
(15 or 200 cm)

Soil gas
sampling
depth
below grade,
 L_s
(cm)

Average
soil
temperature,
 T_s
(°C)

Vadose zone
SCS
soil type
(used to estimate
soil vapor
permeability)

OR

User-defined
vadose zone
soil vapor
permeability,
 k_v
(cm^2)

15

152

24

SII

MORE

Vadose zone
SCS
soil type
Lookup Soil

Vadose zone
soil dry
bulk density,
 ρ_b^A
(g/cm^3)

Vadose zone
soil total
porosity,
 n^V
(unitless)

Vadose zone
soil water-filled
porosity,
 θ_w^V
(cm^3/cm^3)

Average vapor
flow rate into bldg.
(Leave blank to calculate)
 Q_{soil}
(L/m)

1.76

0.398

0.227

5

MORE

Averaging
time for
carcinogens,
 AT_c
(yrs)

Averaging
time for
noncarcinogens,
 AT_{NC}
(yrs)

Exposure
duration,
 ED
(yrs)

Exposure
frequency,
 EF
(days/yr)

70

25

25

250

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm ² /s)	Diffusivity in water, D_w (cm ² /s)	Henry's law constant at reference temperature, H (atm-m ³ /mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_c (°K)	Unit risk factor, URF	Reference conc., RfC (μg/m ³) ⁻¹	Reference (mg/m ³)	Molecular weight, MW (g/mol)
7.20E-02	8.20E-06	1.84E-02	25	8,288	394.40	620.20	5.9E-06	3.5E-02	165.83	

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation,	Vadose zone soil air-filled porosity,	Vadose zone effective total fluid saturation,	Vadose zone soil intrinsic permeability,	Vadose zone soil relative air permeability,	Vadose zone soil effective vapor permeability,	Floor-wall seam perimeter,	Soil gas conc.	Bldg. ventilation rate,
L _T (cm)	θ _a ^v (cm ³ /cm ³)	S _{te} (cm ³ /cm ³)	k _i (cm ²)	k _{ra} (cm ²)	k _v (cm ²)	X _{crack} (cm)	C _{building} (μg/m ³)	Q _{building} (cm ³ /s)
137	0.171	0.486	2.89E-09	0.621	1.79E-09	4,000	5.70E+04	3.39E+04

Area of enclosed space below grade,	Crack-to-total area ratio,	Crack depth below grade,	Enthalpy of vaporization at ave. soil temperature,	Henry's law constant at ave. soil temperature,	Henry's law constant at ave. soil temperature,	Vapor viscosity at ave. soil temperature,	Vadose zone effective diffusion coefficient,	Diffusion path length,
A _B (cm ²)	η	Z _{crack} (cm)	ΔH _{v,TS} (cal/mol)	H _{TS} (atm·m ⁻³ /mol)	H' _{TS} (unitless)	μ _{TS} (g/cm·s)	D ^{eff} _v (cm ² /s)	L _d (cm)
1.00E+06	5.00E-03	15	9,410	1.74E-02	7.14E-01	1.80E-04	1.27E-03	137

Convection path length,	Source vapor conc.,	Crack radius,	Average vapor flow rate into bldg.,	Crack effective diffusion coefficient,	Area of crack,	Exponent of equivalent foundation Peclet number, exp(Pe ^f)	Infinite source indoor attenuation coefficient, α	Infinite source bldg. conc., C _{building} (μg/m ³)
L _p (cm)	C _{source} (μg/m ³)	r _{crack} (cm)	Q _{soil} (cm ³ /s)	D ^{crack} (cm ² /s)	A _{crack} (cm ²)	(unitless)	(unitless)	(μg/m ³)
15	5.70E+04	1.25	8.33E+01	1.27E-03	5.00E+03	1.04E+57	2.46E-04	1.40E+01

Unit risk factor, URF (μg/m ³) ⁻¹	Reference conc., RFC (mg/m ³)
5.9E-06	3.5E-02

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
2.0E-05	2.7E-01

MESSAGE SUMMARY BELOW:

END